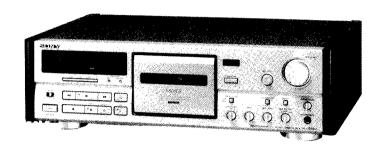
TC-K808ES

SERVICE MANUAL

AEP Model



Dolby noise reduction manufactured under license from Dolby Laboratories Licensing Corporation. "DOLBY" and the double-D symbol [] are trademarks of Dolby Laboratories Licensing Corporation.

Model Name Using Similar Mechanism	TC-K222ESA/ TC-K890ES
Base Unit Name	TCM-200D14

SPECIFICATIONS

Recording system Fast winding time

4-track 2-channel stereo

Approx. 90 sec. (with Sony C-60 cassette)

Bias AC bias Heads

Erasing head × 1 (S&F head) Recording head × 1 (SD head)

Playback head × 1 (SD head) Motors Capstan motor ×1 (direct drive linear torque

BSL motor)

Reel motor × 1 (DC motor) Assist (mechanism drive) motor × 1 (DC

motor)

Signal-to-noise ratio (at peak level and weighted)

Cassette	Type IV	Туре II	Туре І
(Dolby NR off)	61 dB	59 dB	57 dB

S/N ratio improvement (approximate values) With Dolby B NR on: 5 dB at 1 kHz; 10 dB at 5 kHz With Dolby C NR on: 15 dB at 500 Hz; 20 dB at 1 kHz With Dolby S NR on: 10 dB at 100 Hz; 24 dB at 1 kHz

Harmonic distortion

0.4% (with Type I, 160 nWb/m, 315 Hz,

3rd H.D.)

1.5% (with Type IV, 250 nWb/m, 315 Hz.

3rd H.D.)

Frequency response (Dolby NR off)

Type IV cassette	20 - 21,000 Hz (±3 dB, IEC) 20 - 16,000 Hz [±3 dB (-4 dB recording)]
Type II cassette	20 - 19,000 Hz (±3 dB, IEC)
Type I cassette	20 - 17,000 Hz (±3 dB, IEC)

Type IV : Sony METAL-S or ES-IV Type II : Sony UX-S or UX

Type I : Sony HF-S



Wow and flutter

± 0.05% W.Peak (IEC) 0.025% W.RMS (NAB) ± 0.07% W.Peak (DIN)

Inputs

Line inputs	Sensitivity	0.16V
(phono jacks)	Input impedance	47 k ohms

Outputs

Line outputs (phono jacks)	Rated output level	0.5 V at a load impedance of 47 k ohms
	Load impedance	Over 10 k ohms
Headphones (stereo phone jack)	Output level	0 - 3 mW at a load impedance of 32 ohms

General

Power requirements Power consumption Dimensions

220 - 230 V AC, 50/60 Hz

26 W

Approx. $470 \times 135 \times 350 \text{ mm (w/h/d)}$ including projecting parts and controls Approx. 8.0 kg (17 lbs 11 oz)

Supplied accessories Audio connecting cords (2)

M3x8 screws (4)

Design and specifications are subject to change without notice

STEREO CASSETTE DECK SONY

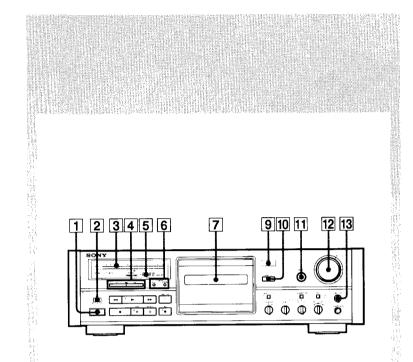
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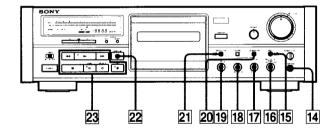
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SAFETY-RELATED COMPONENT WARNING!!

COMPONENTS IDENTIFIED BY MARK A OR DOTTED LINE WITH MARK A ON THE SCHEMATIC DIAGRAMS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.

SECTION 1 GENERAL





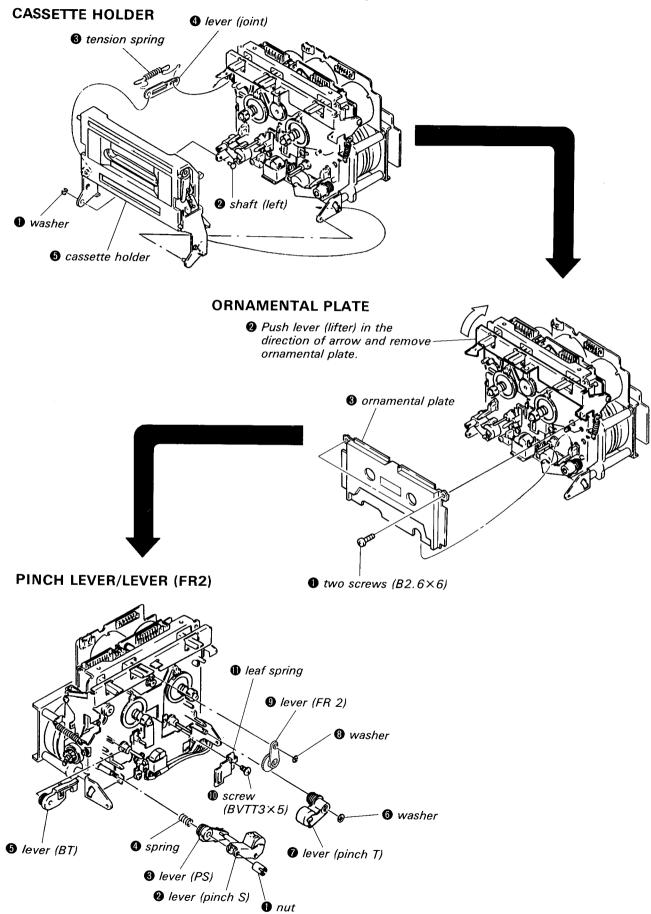
Identifying the Parts

Front Panel

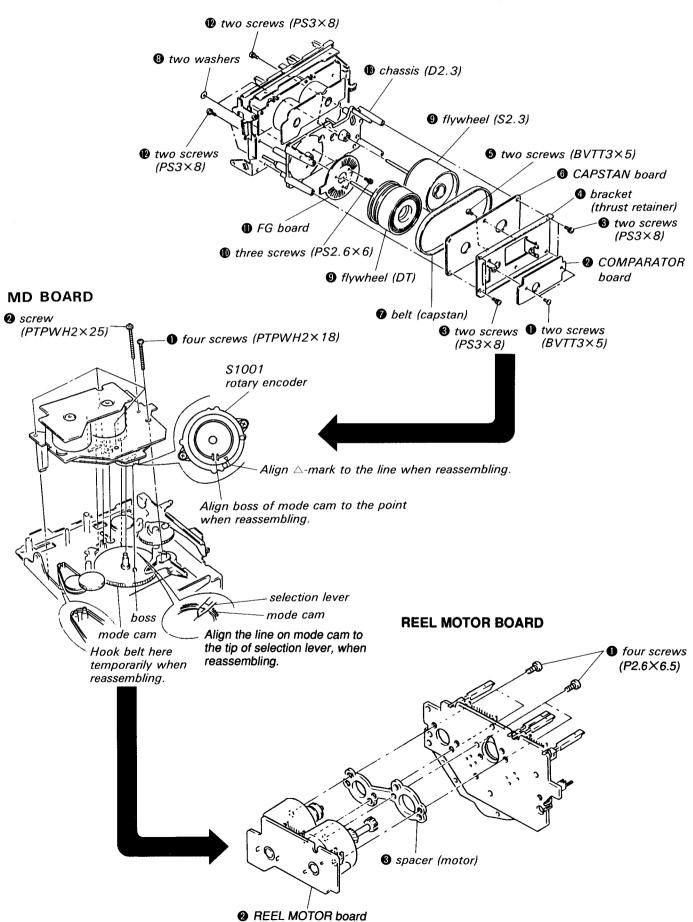
- 1 POWER switch
- 2 TIMER switch
- 3 Peak program meter
- 4 Automatic Music Sensor (AMS) buttons
- 5 Linear counter
- 6 COUNTER buttons RESET button MEMORY button
- 7 Cassette holder
- 9 Remote control sensor*
- 10 MONITOR button
- 11 BALANCE control
- 12 REC (recording) LEVEL control
- 13 PHONE (headphones) LEVEL control
 - * You can remotely control this cassette deck with:
 - A remote commander that came with a Sony amplifier or receiver if it has the smark and cassette deck control capability.
 - An optional Sony remote commander with the mark and cassette deck control capability.
- 14 HEADPHONES jack (stereo phone jack)
- 15 DIRECT button
- 16 REC EQ CAL (recording equalizing calibration) switch (LOW, NORMAL, HIGH)
- 17 REC (recording) LEVEL control for calibration
- 18 BIAS control
- 19 DOLBY NR (noise reduction) switch
- 20 CALIBRATION button
- 21 MPX FILTER button
- 22 ▲ OPEN/CLOSE button
- 23 Tape operation buttons and indicators
 - ◄ (rewind) button
 - (play) button and indicator
 - (fast-forward) button
 - (stop) button
 - PAUSE button and indicator
 - O REC MUTE (record muting) button
 - REC (recording) button and indicator

SECTION 2 DISASSEMBLY

NOTE: Follow the disassembly procedure in the numerical order given.



COMPARATOR BOARD/CAPSTAN BOARD/FLYWHEEL/FG BOARD

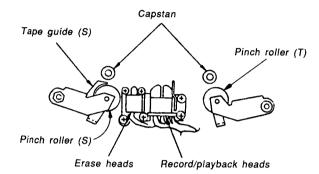


SECTION 3 MECHANICAL ADJUSTMENTS

• Refer to page 8 for Adjustment Location.

PRECAUTIONS

1. Clean the following parts with an alcohol-moistened swab. (tape sliding surface)



- 2. Demagnetize the record/playback heads, erase heads and the capstan using the head demagnetizer.
- 3. Do not use a magnetized screw driver for the adjustments.
- After the adjustments, apply suitable locking compound to the parts adjusted.
- 5. The adjustment should be performed with the rated power supply voltage unless otherwise noted.

Tape Passing Adjustment

Note: For the following adjustments, use the jig as far as possible.

Although the following methods are operable without using the jig, precise adjustment may not be completed, for example no compatibility to other decks is available even if self recording and playback is OK.

In these adjustments, either the pinch roller guide in the S side or the record/playback head guide is referred to for tape pass. Therefore, do not unnecessarily rotate the adjustment screws including those of the erase heads unless any one is replaced. When 2 or more heads or pinch rollers out of these 2 heads and pinch rollers are to be adjusted or replaced, use the jig for the adjustments or replace one at first and then take complete tape pass and then replace the second one.

Head height adjusting jig: apex

Preparation:

• Mirror cassette CQ009C 8-909-708-01 (Or CO012C 8-909-708-02)

If it is not avaliable, cut a part of the half of a 120 minute cassette tape and use.



· Plus screw driver

Medium size Apply to the head adjusting screw.

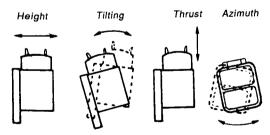
Minus screw driver

Large size Apply to the pinch roller adjusting screw in the S side.

- · Pen light
- WS-48B (3kHz, 0dB)
- P-4-A100 (10kHz, -10dB)

Definition:

The following view relates to record/playback heads.



For the locations of the adjusting screws, see the view "adjustment location" in the lower right corner of Page 8.

Procedure:

Pinch roller in the S side

Note: It should be adjusted only when the pinch roller in the S side is replaced.

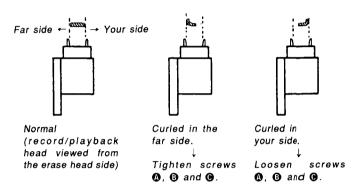
- 1. Mount the mirror cassette and set the equipment to playback state.
- 2. Check that the tape is curled in the pinch roller guide or the guide of the record/playbakd heads.

If curled, remedy it by rotating the tape curl adjusting screw **①**. At tha time, check that the tape runs near the center part of the erase heads.

Record/playback heads

Note: The heads should be adjusted only when the record/playback head is replaced.

- 1. Mount the mirror cassette and set the equipment to playback state.
- 2. (Height adjustment) Check that the tape is curled in the tape guide of the heads. If curled, rotate screws ②, ③ and ⑤ in the same angle and move the entire heads parallel. Check the mirror cassette where there is curling and, when curling exists in the lower side (actually in the deep side), tighten all screws slightly. If curled in the upper (your) side, loosen them.

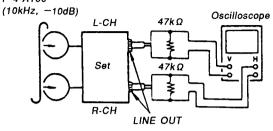


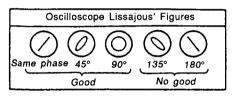
3. (Adjustment of tilting) Adjust back tension to 0 still in playback state (loosen the tape by rotating the reel in the S side using a small tip such as a pencil), and check that there is no curling or snaking (up or down) in the guide of the record/playback heads. Snaking of the tape may occur only within the range of a difference in the widths of the tape and the tape guide (it curls when tate slacks more than the range). Therefore, carefully check it because it may often be overlooked.

If the tape is snaking, rotate screws ① and ② in the same angle and change the tilting of the heads. Tighten or loosen the screws to remedy up or down snaking, respectively.

- 4. Repeat the adjustment 2 and 3 again and converge the height and tilting to suitable positions.
- (Tentative adjustments of azimuth) Demagnetize and clean the heads and playback WS-48B (3kHz, 0dB).
 - Rotate the screw ② so that the pointer of the level meter of the set or connected to LINE OUT becomes maximun. If the screw is rotated more than 1/2 turn, repeat the adjustments again from 1.
- 6. (Checking of tape pass) Connect an oscilloscope to LINE OUT, replay P-4-A100 (10kHz, -10dB) to describe Lissajou's figures. At about 20 seconds after beginning playback (the tention in the loop becomes stable), check that the variation of the Lissajou's figures occur within ±90° (more preferably within ±45°). If beyond ±90°, adjustments of tilting or height will not be complete, so finely adjust the equipment again from 1.

Standard adjustment tape P-4-A100

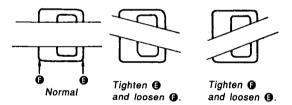




Erase heads

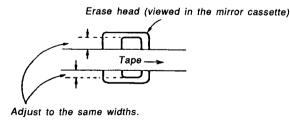
Note: The heads should be adjusted only when the erase head is replaced.

- 1. Mount the mirror cassette and set the equipment to playback state.
- 2. (Azimuth adjustments) Adjust screws 3 or 3 so that the tape runs as parallel to the erase heads as possible.



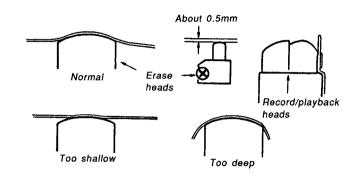
(Erase head viewed in the mirror cassette)

3. (Height adjustment) Rotate screws ①, ③ and ③ in the same angle so that the widths of erase heads seen in the upper and lower sides of the tape become essentially the same. If the width in the upper or lower side is larger, tighten or loosen the screws, respectively.



4. (Adjustments of tilting) Adjust back tension to 0 still in playback state and check that there is no snaking in the erase heads and pinch roller guide in the S side. If there is, change tilting by rotating the screw ②. When the tape moves up or down in the mirror tape, tighten or loosen the screw, respectively.

- Repeat the adjustments again from 2. and converge the height and tilting to more suitable values. And, check that there are no tape curls in the pinch roller guide and the guide of the record/playback heads.
- (Adjustments of thrust) Slightly loosen the screw and finely adjust it so that the tape smoothly runs over the entire surfaces of the heads by adjusting the thrust of the erase heads to an optimum value relative to the tape.

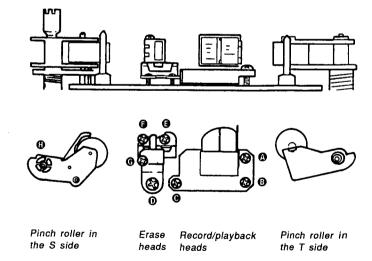


Checking

- Check that the tape smoothly runs over the entire tape pass without curling or snaking.
- After the adjustments, apply the locking compound to the screws adjusted (apply the compound to the screw only after the final azimuth adjustments are completed).

Adjustment Location:

The following views relate to those in the mirror cassette (upper) and MD viewed from your side (lower).



SECTION 4 ELECTRICAL ADJUSTMENTS

0dB = 0.775V

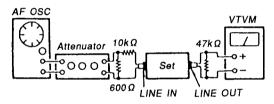
- Perform adjustment in the order listed below. (As a rule, adjust the record system after adjustment of playback system has been completed.)
- 2. Adjust and measure both channels unless otherwise specified.
- To perform simultaneous record and playback, select recording mode, and set MONITOR switch to TAPE, then play back immediately the recorded signal to take out from LINE OUT.

· Switch position

- man promise.
DOLBY NROFF
MPX FILTEROFF
TIMEROFF
MONITOR ·····TAPE
CALIBRATIONOFF
DIRECT ·····OFF
BIASCENTER CLICK
REC LEVELCENTER CLICK
BALANCE CENTER CLICK

· Standard Record

Adjust the REC LEVEL (RV502) and BALANCE (RV501) controls so that the I/O signal levels specified below can be attained. Record Mode



Standard Input Level

Input pin	LINE IN
Signal source impedance	10k Ω
Input signal level	0.25V (-10dB)

Standard Output Level

Output pin	LINE OUT	
Load impedance	47kΩ	
Output signal level	0.32V (-7.7dB)	

Test tape

Туре	Signal	Used for
WS-48B	3kHz, 0dB	Tape speed/WOW check
P-4-A100	10kHz, -10dB	Azimuth adjustment
P-4-L300	315Hz, 0dB	PB level adjustment

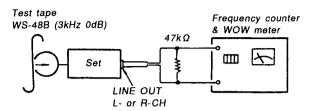
Torque Adjustment

- 1. Load the torque measuring tape CQ-102C, and play back. Adjust RV801 so that the torque meter reading is 40 ± 5 g·cm. (0.556 \pm 0.069 oz·inch)
- After adjustment, measure back tension and FF/REW torque, and make sure that measured data satisfies the specification.

Torque	Torque meter	Meter reading
FWD	CA-102C	35-45g·cm (0.49-0.62 oz·inch)
FWD back tension	CA-102C	7-11g·cm (0.10-0.15 oz·inch)
FF/REW	CQ-201B	65-90g·cm (0.91-1.25 oz·inch)

Tape Speed/WOW Check

Procedure:



- Play back the top of test tape to measure its output frequency and WOW value.
- Invert test tape and perform same measurement, then check for difference between top and end of tape.

Specification:

Tape speed deviation: within 2,990~3,010Hz
Tape speed fluctuation: within 2,990~3,010Hz
WOW (WRMS): 0.047% or less

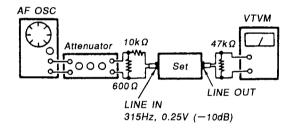
MPX Filter Check

Condition:

DOLBY NR switch: OFF MPX FILTER switch: OFF

Procedure:

1. Mode: stop



- Applying 315Hz, 0.25V (-10dB) signal, adjust the REC LEVEL and BALANCE controls so that the LINE OUT level is 0.32V (-7.7dB).
- Applying 19kHz, 0.25V (-10dB) signal, measure the LINE OUT level.

Specification:

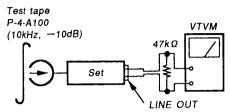
DOLBY NR switch: Either B, C or S

MPX FILTER switch: ON, LINE OUT level must be, 315Hz: within $0.28\!\sim\!0.36V$ (within $-8.7\!\sim\!-6.7dB$)

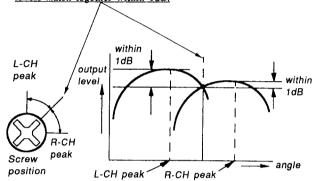
19kHz: 9.8mV (-38dB) or less

Record/Playback Head Azimuth Adjustment Procedure:

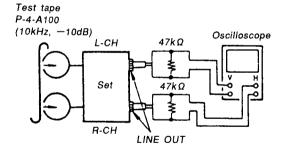
1. Mode: FWD playback



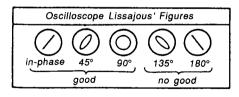
Turn the adjustment screw for the maximum output levels. If these
levels do not match, turn the adjustment screw until both of output
levels match together within 1dB.



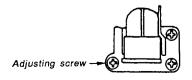
3. Phase Check Mode: playback



4. Confirm that the phase difference between L-CH and R-CH is in-phase to 90° .



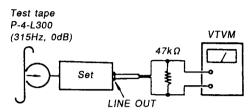
Adjustment Location:



Playback Level Adjustment

Procedure:

1. Mode: playback



2. Adjust the RV101 (L-CH) and RV201 (R-CH) to satisfy the following specification.

Adjustment Value:

LINE OUT level: 302 — 338mV

(-8.2 - -7.2 dB)

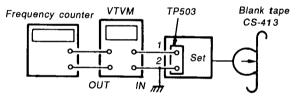
Level difference between channels: within 0.5dB

Confirm that the LINE OUT level does not change when playback and stop are repeated.

Erase Current Adjustment

Procedure:

1. Mode: record



- Adjust RV506 so that VTVM reading is 110mV (erase current 110mA).
- 3. At this time, confirm oscillation frequency.

Adjustment Value:

Erase current: 110 +0 mA

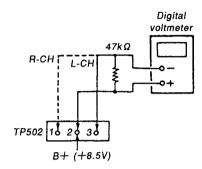
Oscillation frequency: 160±6kHz

Blas Consumption Current Adjustment

Note: The bias consumption current must be adjusted before adjusting the record bias. Retry record bias adjustment after the bias consumption current is adjusted.

Procedure:

- Set semi-fixed resistors RV104 (L-CH), RV204 (R-CH) and RV505 for record bias adjustment to mechanical center, and select the recording mode without applying a signal.
- Adjust T101 (L-CH) and T201 (R-CH) so that the digital voltmeter reading becomes minimum.



Specification: 120mV or less

(This value is measured using CS-413 after bias adjustment.)

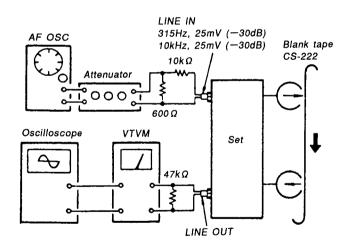
Blas and Recording level adjustment

Condition:

REC LEVEL control: Specified recording position (Page 9)

Procedure:

1. Mode: simultaneous record and playback



- Adjust the following controls so that the minimum output becomes the specified output level.
 - (1) RV104 (L-CH) and RV204 (R-CH)Bias adjustment
 - (2) RV103 (L-CH) and RV203 (R-CH)Recording level adjustment

Adjustment Value:

(1) Level of 10kHz against 315Hz: 0±0.3dB

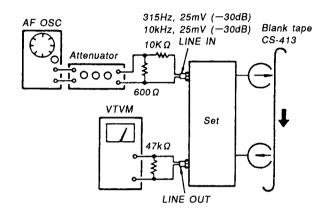
(2) 315Hz level: 30.9 - 33.1mV (-28.0 - -27.4dB)

Metal Bias Adjustnemnt

Condition:

REC LEVEL control: Specified recording position (page 9) Procedure:

1. Mode: simultaneous record and playback



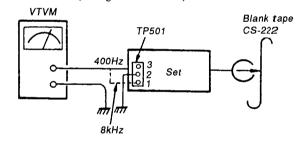
2. Adjust RV505 so that 10kHz R-CH output is $0\pm0.3dB$ relative to the 315Hz output.

Calibration Adjustment and Level Meter Adjustment Condition:

CALIBRATION switch: ON

Procedure (oscillation output level adjustment):

1. Mode: record (No signal to LINE IN)

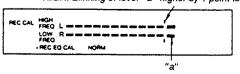


- Adjust RV508 so that the 400Hz check point level is 2.32 2.59V (9.5dB—10.5dB).
- Adjust RV507 so that the 8kHz check point level is 2.32 2.59V (9.5dB—10.5dB).

Procedure (level meter adjustment):

- 1. Record mode (No signal to LINE IN)
- Adjust RV102 to higher side, then lower it gradually.
 Adjust so that the level "a" higher by one point than 0dB of LOW FREQ segment (lower) of CAL level meter turns off.
- Adjust RV202 so that HIGH FREQ segment (upper) up to 0dB position of CAL level meter turns on.

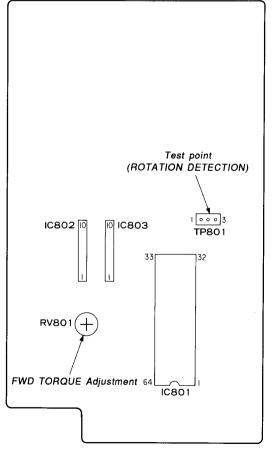
HIGH: Blinking of level "a" higher by 1 point is acceptable.



LOW: Blinking of level "a" higher by 1 point is not acceptable.

AUDIO (A) BOARD (component side) Test point (ERASE CURRENT) TP503 RV506 Adustment ERASE CURRENT RV203 RECORDING CALIBRATION **(+)** LEVEL Adjustment RV204 Adjustment Test point \oplus (T)T201 (BIAS CONSUMPTION CURRENT) IC511 + RV507 TP502 BIAS CONSUMPTION RV508 BIAS Adjustment < CURRENT Adjustment T101 RV104 000 Test point (CALIBRATION OSCILLATION TP501 1 LEVEL) (+)(+)-METAL BIAS RV103 RV505 Adjustment RV201 (+) PLAYBACK LEVEL RV202 **~**(+) Adjustment CALIBRATION **^**(Ŧ) RV101 (+) METER Adjustment RV102 IC502





SECTION 5 DIAGRAMS

IC PIN ASSIGNMENT

IC801 Master Microcomputer (M50964-226SP)

This IC controls, based on input signals from various switches and remote devices, the mechanical deck, audio signal switching for equalizer, muting, etc. and data transfer to the display microcomputer.

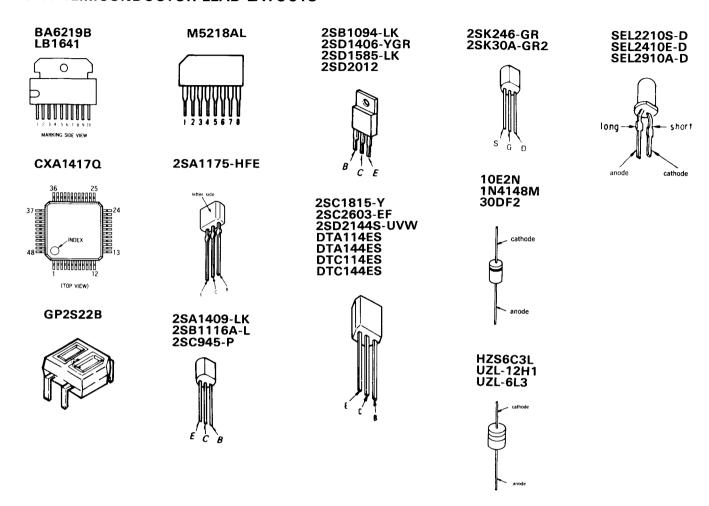
Pin. No.	Pin Name	I/O	Function		
1	Vcc	_	Power supply (+5V)		
2	AVss	_	Power supply (GND)		
3	Vref	I	Reference voltage input (+5V) to A/D ports		
4	DATA	0	Data output (analog) to display microcomputer (IC601)		
5	PWM	-	Not used		
6	ADR0	0	Data output to display microcomputer (IC601)		
7	REC	0	Not used (Connected to GND)		
8	PAUSE	0	Not used (Connected to GND)		
9	PLAY	0	Not used (Connected to GND)		
10	AD7	I	Key switch input (analog) 0V: "♠", 1V: "■", 2V: "◄", 3V: "▶", 4V: "♠"		
11	AD6	I	Key switch input (analog) 0V: "▶", 1V: "▮", 2V: "⊷", 3V: "⊷", 4V: "○"		
12	AD5	I	Key switch input (analog) 0V: "RESET", 1V: "MEMORY", 2V: "DISPLAY MODE"		
13	TIMER SW	I	Key switch input (analog) 3V: "REC", 4V: "PLAY", 5V: "OFF"		
14	T-PULSE	I	Mechanism deck take-up reel table sensor pulse input		
15	S-PULSE	I	Mechanism deck supply reel table sensor pulse input		
16	COUNT 0	I	Negative pulse input at counter 0		
17	_	_	Not used		
18	RSTOUT	0	Not used (Connected to GND)		
19	S-CLOCK	0	Not used (Connected to GND)		
20	S-OUT	0	Not used (Connected to GND)		
21	S-IN	I	Not used (Pull up)		
22	SIRCS-L	I	SIRCS signal (remote control) normal phase input		
23	SIRCS-E	I	SIRCS signal (remote control) inverted phase input Inverted SIRCS-L input		
24	POW-OUT	0	Not used (Open)		
25	POWER IN	I	Power down detection input		
26	ĪNT1	I	Power down detection input		
27	CNVss	_	Power supply (GND)		
28	RESET	I	RESET input		
29	XIN	I	Clock input (4MHz)		
30	XOUT	0	Clock output (4MHz)		
31	φ		Not used		
32	Vss		Power supply (GND)		
33~36	PAT3∼PAT0	I	Rotary encoder input for mechanism deck head base position detection		
			PAUSE AMS FF/REW STOP PLAY EJECT		
			PAT3 L L L L H H H H		
			PATZ L L H H L L H H		
			PATI L H L H L H		
			PATO L H H L L L L		
37	OPEN SW	I	Mechanism deck OPEN SW (S1004) input "L": Cassette holder is opened		
38	CLOSE SW	I	Mechanism deck CLOSE SW (S1003) input "L": Cassette holder is closed		

Pin. No.	Pin Name	1/0	1			Function	<u> </u>	
39	DOOR SW	"C	Mechanism deck DO	OR SW (\$10)02) input (atus changes from open to close
40	REC SW	I	Mechanism deck REC					
41	70 μ SW	I	Mechanism deck 70 µ					μ S (constant when playback EQ)
42	HALF SW	I	†	Mechanism deck HALF SW (S1006) input "L": Tape is loaded				
43	METAL SW	I	···	Mechanism deck METAL SW (\$1007) input "H": Metal tape, "L": Normal or CrO2 tape				
44	_	 -	Not used					
45	CAM UP	0	Mechanism deck head	Mechanism deck head base UP output				
46	CAM DOWN	0	Mechanism deck head	base DOW	N output			
			STOP DOWN UP STOP					
			CAM UP	L	Н	L	Н	<u> </u>
			CAM DOWN	L	L	Н	Н	
					L	1 11	11]
47	M-FWD	0	Reel motor forward ru	Reel motor forward run				
48	M-REV	0	Reel motor reverse rui	Reel motor reverse run				
					FWD/	REV/	Т	1
				STOP	CLOSE	OPEN	BRAKE	
			M-FWD	L	L	Н	Н	
			M-REV	L	Н	L	Н	
								ı
49	M-PLAY	0	"L" when reel motor	runs at PLA	Y speed			
50	M-FAST	0	"L" when reel motor	runs at FF/R	EW speed			
51	BIAS	0	Bias oscillation contro	l output "	L": Oscillat	ion, "H'	: OFF	
52	REC MUTE	0	REC mute control outp	out "H":	Mute			
53	MONITER	0	Monitor switch output	" H " : TA	APE, "L"	SOURCE		
54	LINE MUTE	0	Line mute control outp	out "H":	Mute			
55			Not used (Connected to	o AMS MO	DE)			
56	AMS MODE	0	AMS switch output '	L": AMS				
57	TYPE I	0	REC equalizer switchi	ng output '	L": Norm	al tape		
58	TYPE II	0	REC equalizer switching	ng output '	'L": CrO2	tape	-	
59	TYPE IV	0	REC equalizer switching	ng output '	'L": Metal	tape		
60	AMS SIG	I	AMS signal input "I	": No mus	ic "H": N	⁄Iusic		
61	SOURCE SW	I	Not used (Connected to	o +5V)				
62	TAPE SW	I	Not used (Connected to	Not used (Connected to +5V)				
63	CAL SW	I	Calibration SW (S602)	input "L	": CAL mod	ie, "H":	Normal mod	le
64	ADDR1	0	Data output to display	microcompu	ter (IC601)		-	-

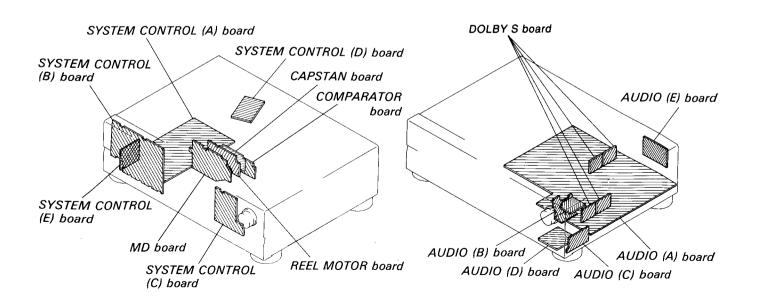
IC601 Display Microcomputer (M50940-313SP)
This IC controls display of 24-segment level meter, counter, etc. based on the instruction from master microcomputer (IC801).

Pin. No.	Pin Name	1/0	Function		
1	Vref	I	Reference voltage input (+5V) to A/D ports		
2	ø L	I	Mechanism deck supply reel table sensor pulse input		
3	φR	I	Mechanism deck take-up reel table sensor pulse input		
4	DATA	I	Data input (analog) from master microcomputer (IC801)		
5~6	ADR1~ADR0	I	Data input (analog) from master microcomputer (IC801)		
7	KEY	I	Key switch input (analog) 0V: MEMORY 1.6V: RESET 3.1V: DISPLAY		
8	LEVEL L	I	Level meter Lch input (analog) from meter amplifier (IC507)		
9	LEVEL R	I	Level meter Rch input (analog) from meter amplifier (IC507)		
10~15	GRID6∼GRID1	0	FL tube grid output		
16	C00	0	Negative pulse output when counter is 00		
17	PLAY	0	PLAY LED output "L": ON		
18	PLAY	0	PLAY LED output "L": ON		
19	PAUSE	0	PAUSE LED output "L": ON		
20	REC	0	REC LED output "L": ON		
21	TAPE	0	FL tube segment output (L: TAPE, H: SOURCE display)		
22	OVER LEVEL	0	FL tube segment output (" OVER LEVEL " display)		
23	TYPE I	0	FL tube segment output ("TYPE I" display)		
24	TYPE II	0	FL tube segment output ("TYPE II" display)		
25	TYPE IV	0	FL tube segment output ("TYPE IV" display)		
26	CNVss	_	Power supply (GND)		
27	RESET	I	RESET input		
28	XIN	I	Clock input (4MHz)		
29	XOUT	0	Clock output (4MHz)		
30	XCIN	_	Not used (Normally "L")		
31	XCOUT	_	Not used		
32	Vss	_	Power supply (GND)		
33	φ	0	Not used		
34	VER	I	Version switching input (Normally "L")		
35	TEST	I	TEST mode input "L": Meter all ON		
36	CAL	I	Calibration SW (S602) input "L": CAL mode, "H": Normal mode		
37	IN	I	Not used		
38	VP	I	Pull down power supply (-22V) for FL tube segment output		
39~62	\$23~\$0	0	FL tube segment output (meter, counterr display)		
63	AVcc		Power supply (+5V)		
64	Vcc	_	Power supply (+5V)		

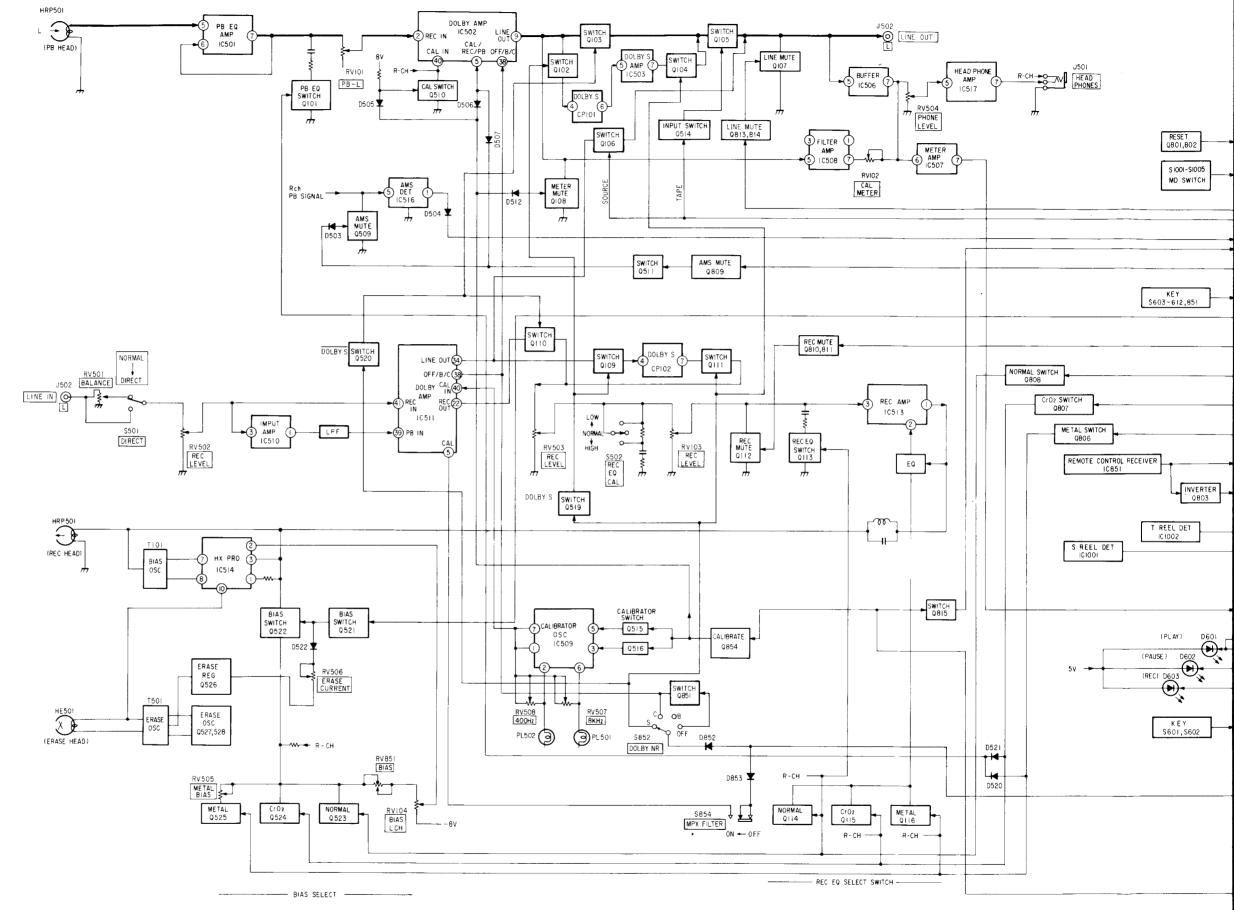
5-1. SEMICONDUCTOR LEAD LAYOUTS



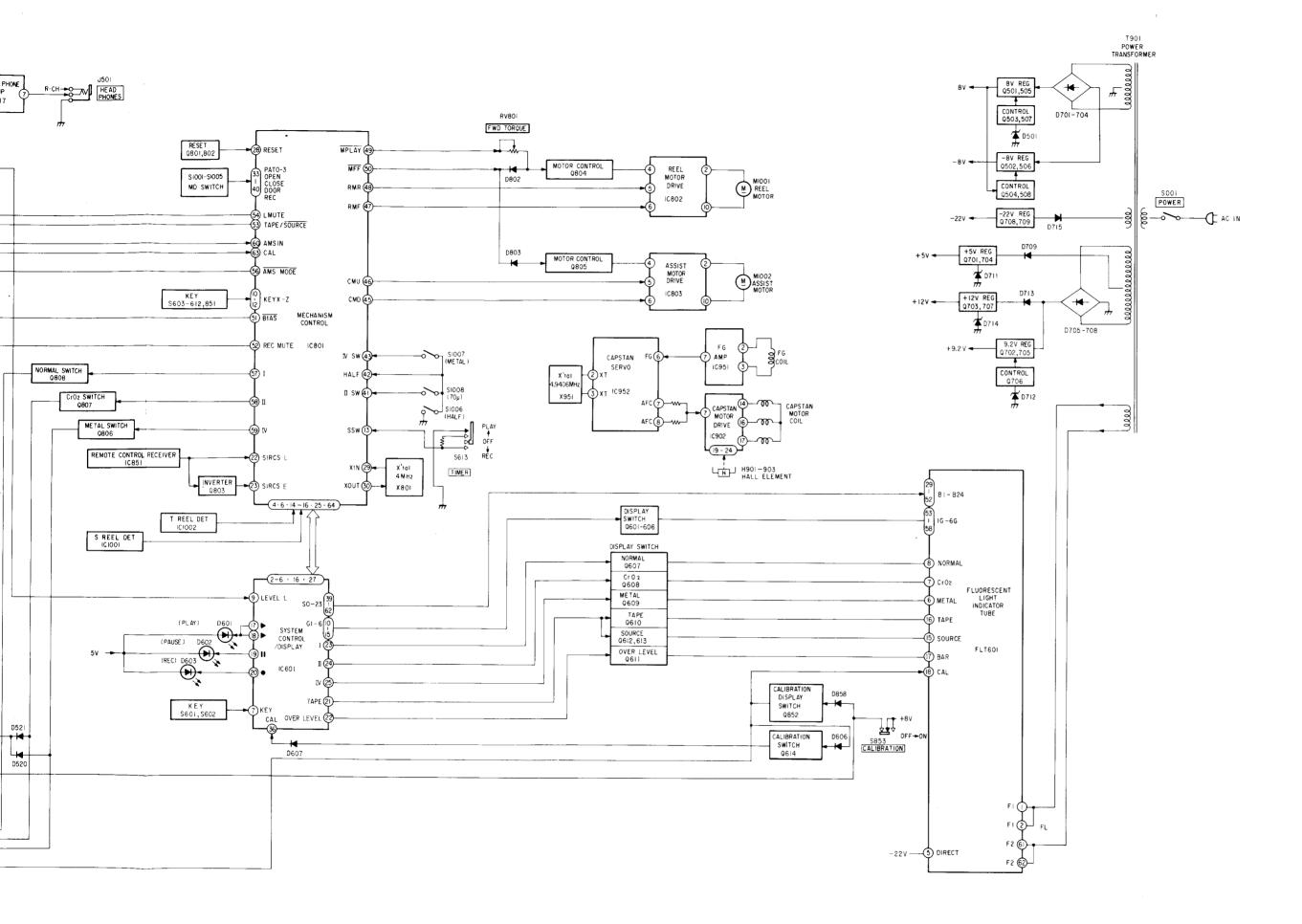
5-2. CIRCUIT BOARDS LOCATION



5-3. BLOCK DIAGRAM



SAME AS R-CH



• Semiconductor Location

 Semicon 	Semiconductor Location								
Ref. No.	Location	Ref. No.	Location	Ref. No.	Location				
D101	J-7	IC1	C-21	Q212	C-12				
D102	J-7	IC2	G-20	Q213	C-13				
D103	G-6	IC501	H-13	Q214	C-13				
D104	G-7	IC502	I-10	Q215	C-13				
D105	D-6	IC503	I-7	Q216	C-13				
D106	E-6	IC506	F-8	Q501	H-15				
D107	E-6	IC507	E-6	Q502	G-15				
D108	D-12	IC508	J-6	Q503	I-16				
D109	E-12	IC509	B-7	Q504	G-16				
D201	G-7	IC510	C-7	Q505	H-16				
D202	G-7	IC511	C-9	Q506	G-16				
D203	G-8	IC513	D-14	Q507	H-16				
D204	G-7	IC514	D-16	Q508	G-16				
D205	D-6	IC516	F-10	Q509	G-12				
D206	E-7	IC517	J-3	Q510	G-12				
D207	E-7			Q511	F-13				
D208	C-12	Q101	H-12	Q514	F-8				
D209	B-12	Q102	J-8	Q515	C-6				
D501	H-16	Q103	I-7	Q516	C-7				
D503	F-13	Q104	I-7	Q519	E-10				
D504	F-9	Q105	G-6	Q520	E-10				
D505	G-11	Q106	G-7	Q521	D-17				
D506	G-11	Q107	F-7	Q522	D-17				
D507	G-11	Q108	J-7	Q523	E-16				
D508	J-8	Q109	E-11	Q524	E-16				
D509	J-8	Q110	D-12	Q525	E-16				
D510	H-8	Q111	E-12	Q526	B-16				
D511	H-8	Q112	E-13	Q527	B-16				
D512	F-8	Q113	D-13	Q528	B-15				
D513	E-8	Q114	D-13						
D514	C-12	Q115	D-13						
D515	C-12	Q116	D-13						
D516	E-12	Q201	G-12						
D517	E-12	Q202	H-8						
D518	E-11	Q203	H-7						
D519	E-10	Q204	G-7						
D520	F-13	Q205	G-7						
D521	F-13	Q206	G-7						
D522	B-16	Q207	F-7						
D523	J-8	Q208	G-7						
D524	H-8	Q209	C-11						
D525	C-12	Q210	D-12						
D526	E-12	Q211	B-12						

- parts extracted from the component side.
- : parts mounted on the conductor side.
- : Through hole.
- Pattern from the side which enables seeing.

(The other layers' patterns are not indicated.)

Caution:

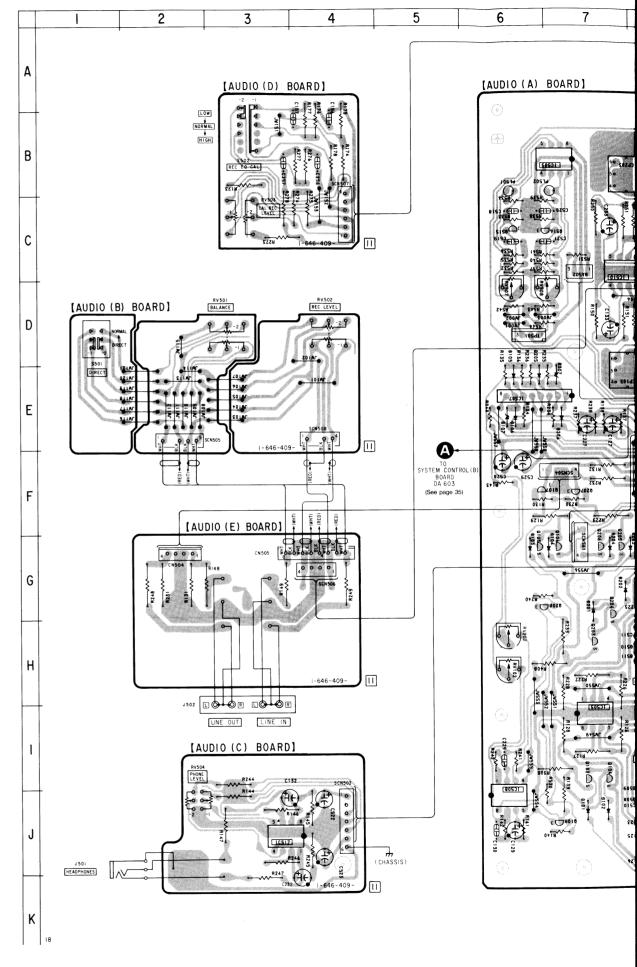
Pattern face side: Parts on the pattern face side seen from

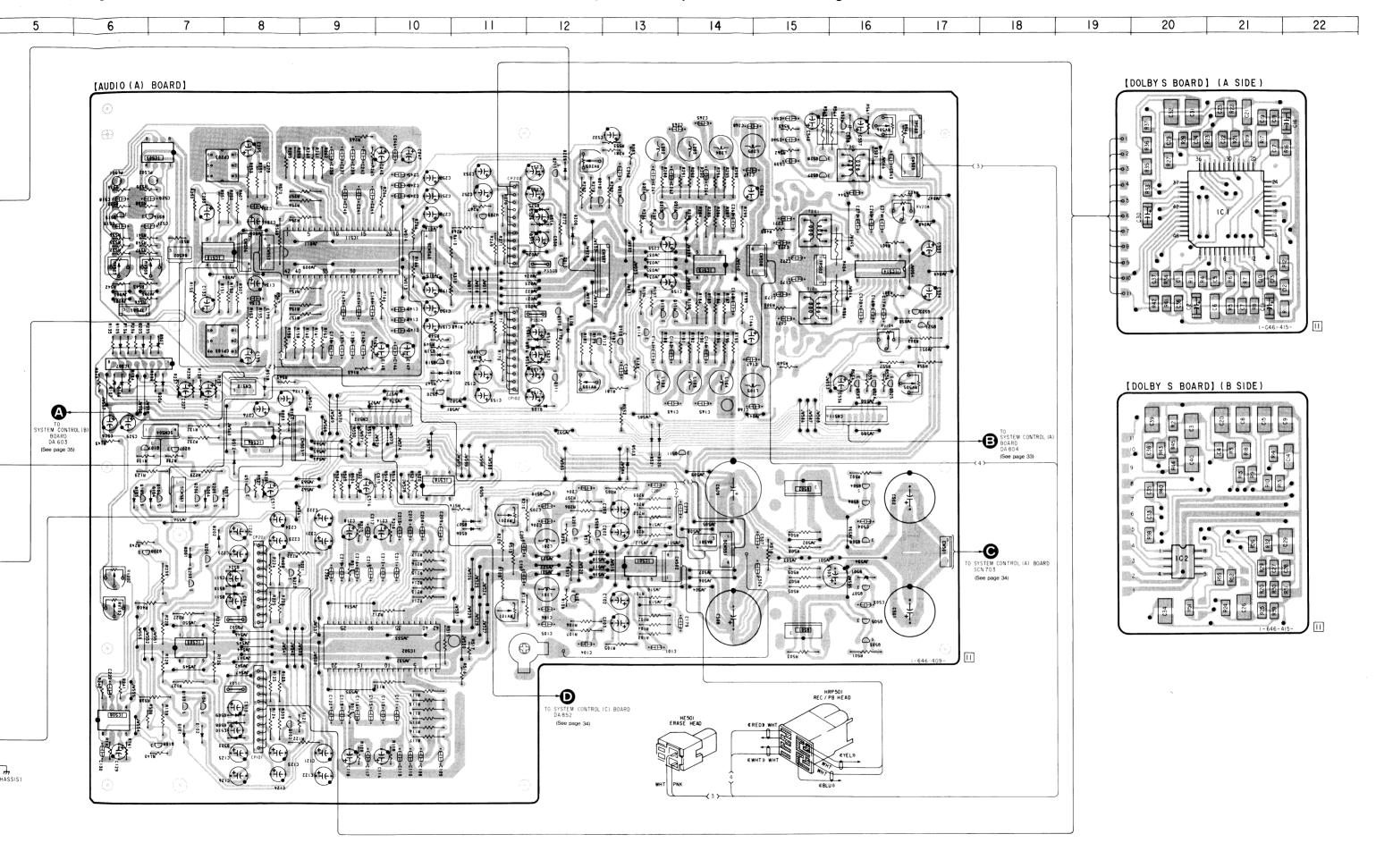
(Conductor Side) the pattern face are indicated.

Parts face side: Parts on the parts face side seen from the

(Component Side) parts face are indicated.

5-4. PRINTED WIRING BOARDS -AUDIO Section- See page 16 for Circuit Boar





Voltage is dc with respect to ground

Voltages are taken with a VOM (Input Impedance $10M\,\Omega$). Voltage variations may be noted due to normal produc-

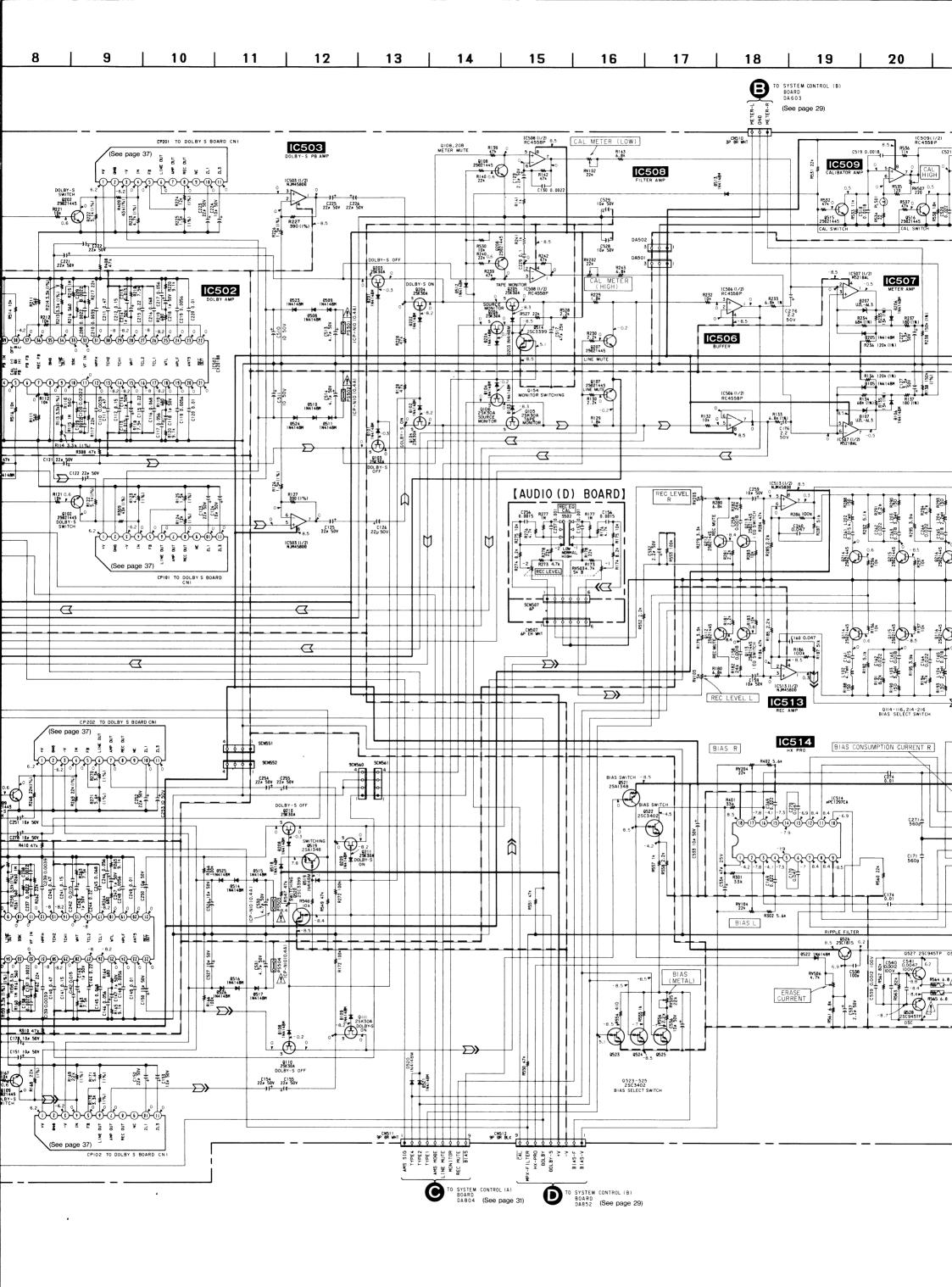
under no-signal conditions.

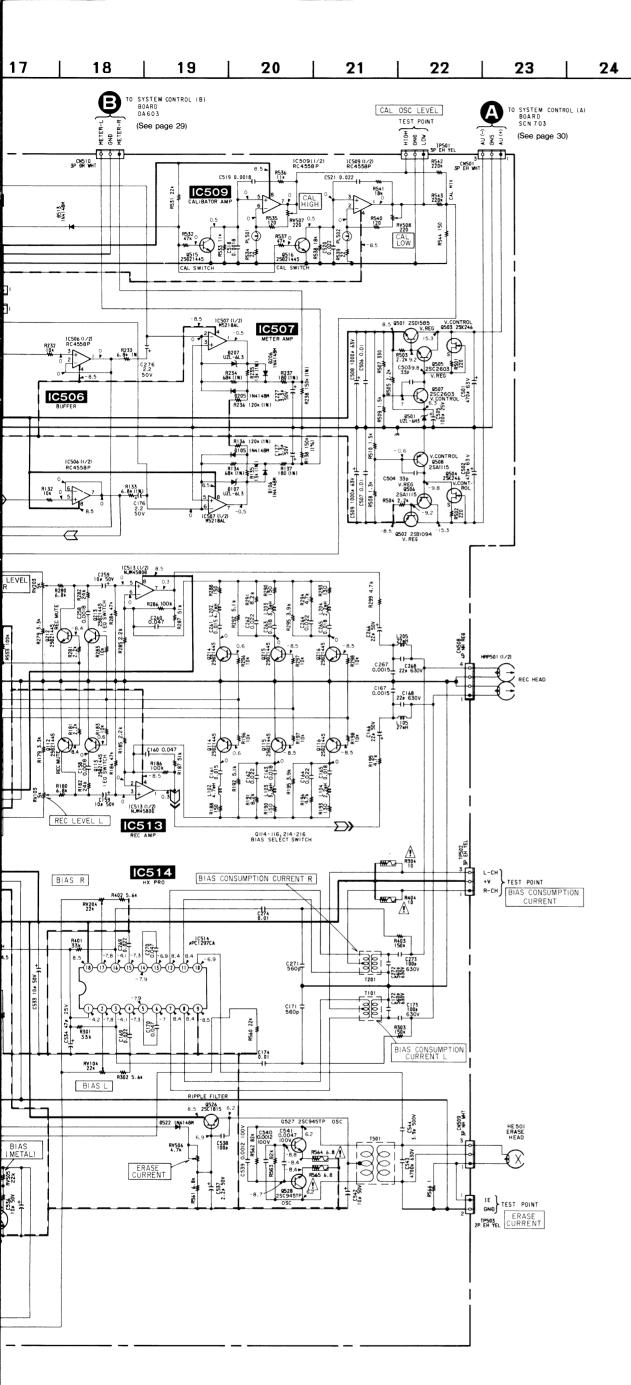
tion tolerances.

Signal path.

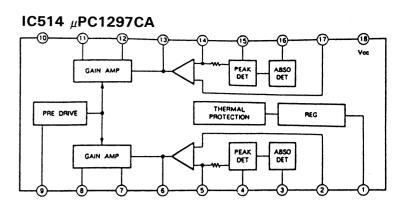
PB

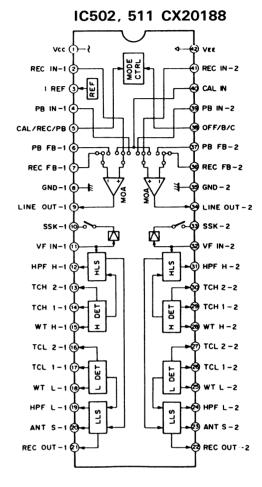
REC





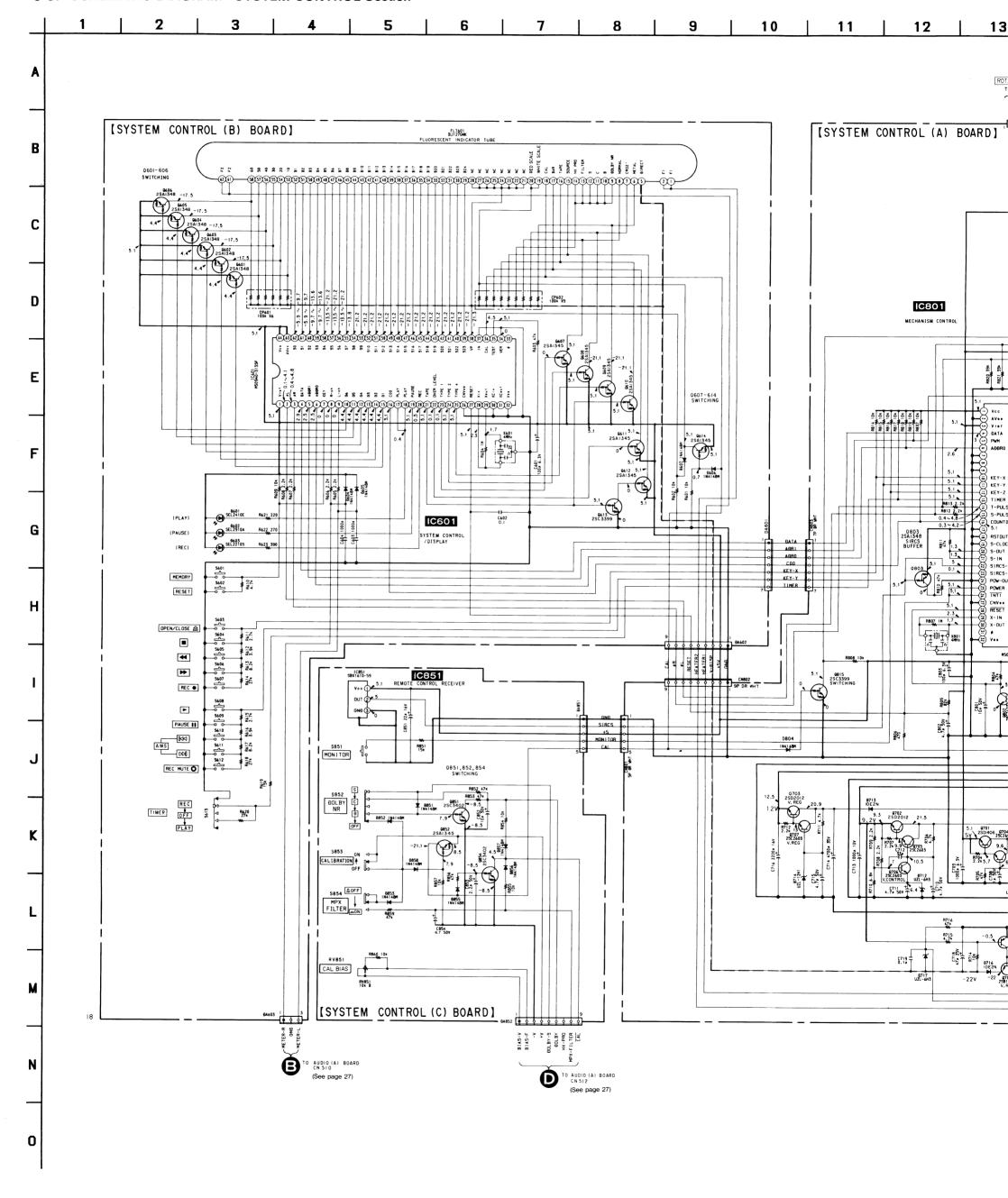
IC Block Diagrams

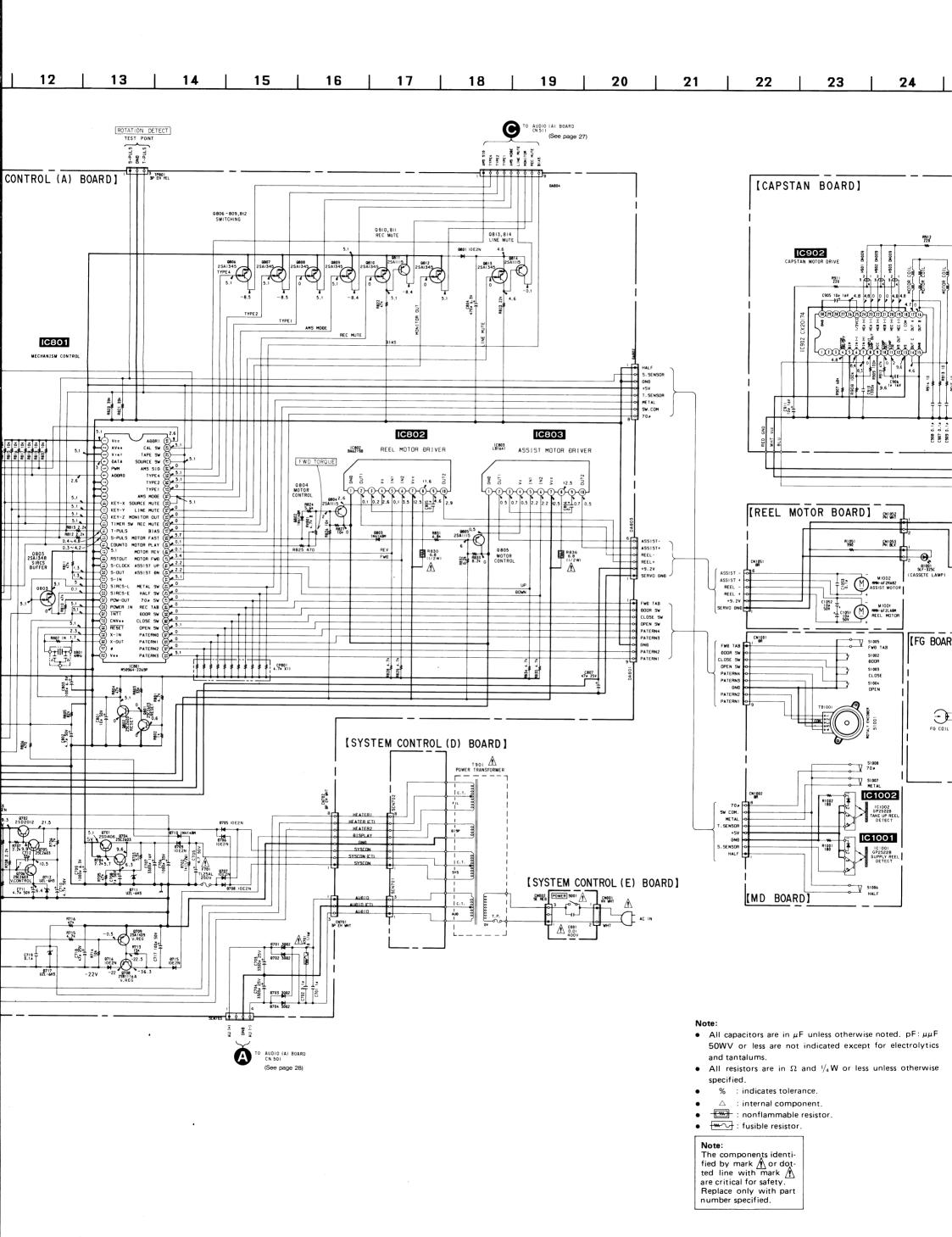




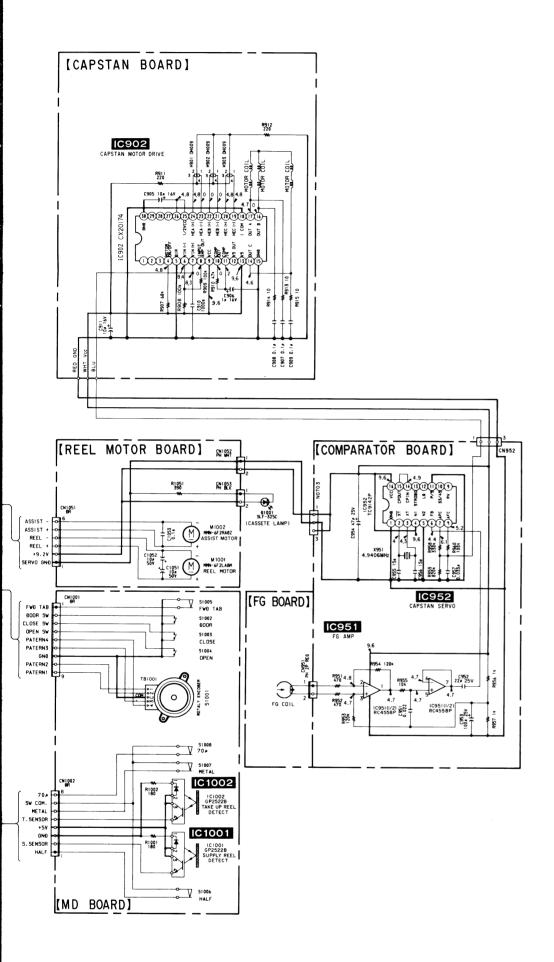
Pin. No.	Pin Name	Function
1	Vcc	Positive power suply
2, 41	REC IN	REC input
3	I REF	Reference current input
4, 39	PB IN	PLAYBACK input
5	CAL/REC/PB	CALIBRATION/REC/PLAYBACK switching
6, 37	PB FB	PLAYBACK feedback
7, 36	REC FB	REC feedback
8, 35	GND	GND in 2-power mode, Vcc/2 in 1-power mode
9, 34	LINE OUT	Line out (decode output)
10, 33	SSK	Spectral skewing switch
11, 32	VF IN	Encode circuit input
12, 31	HPF H	HLS high pass filter
13, 30	TCH 2	HLS detector time constant 2
14, 29	TCH 1	HLS detector time constant 1
15, 28	WT H	HLS weighting
16, 27	TCL 2	LLS detector time constant 2
17, 26	TCL 1	LLS detector time constant 1
18, 25	WT L	LLS weighting
19, 24	HPF L	LLS high pass filter
20, 23	ANT S	Anti-saturation
21, 22	RED OUT	REC output (encode output)
38	OFF/B/C	DOLBY NR OFF/B type/C type switching
40	CAL IN	CALIBRATION input
42	VEE	Negative power supply in 2-power mode, GND in 1-power mode

5-6. SCHEMATIC DIAGRAM - SYSTEM CONTROL Section -



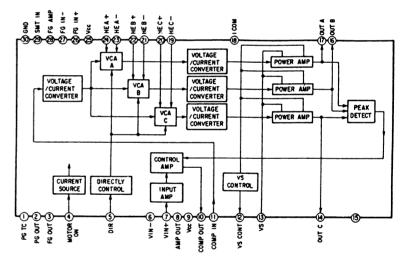


22 | 23 | 24 | 25 | 26 | 27 | 28

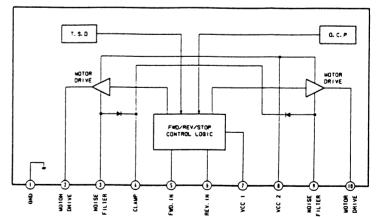


● IC Block Diagrams

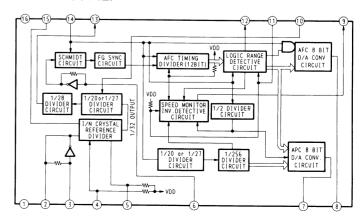
IC902 CX20174



IC802 BA6219B IC803 LB1641



IC952 TC9142P



lote:

- All capacitors are in μF unless otherwise noted. pF: $\mu \mu F$ 50WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and $^{1}\!/_{\!4}\,W$ or less unless otherwise specified.
- % : indicates tolerance.△ : internal component.
- : internal component.
- : nonflammable resistor
- fusible resistor.

Note:

The components identified by mark A or dotted line with mark are critical for safety.
Replace only with part number specified.

- : B+ Line
- ===: B- Line
- adjustment for repair.

 Voltage is do with respect to group
- Voltage is dc with respect to ground under no-signal conditions.
- Voltages are taken with a VOM (Input Impedance 10M ℚ).

 Voltage variations may be noted due to normal production to large telephones.

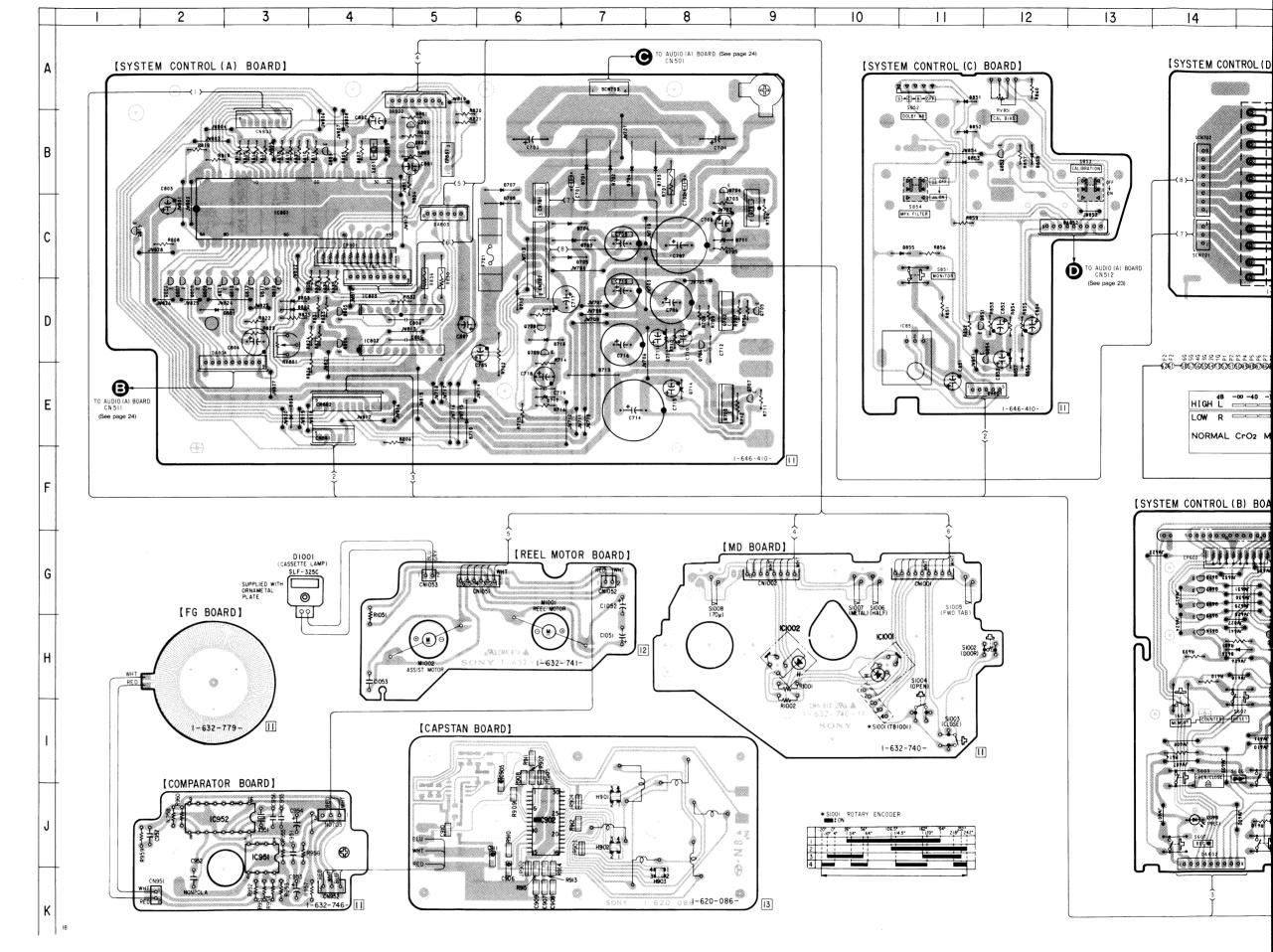
Semiconductor Location

Ref. No.	Location	Ref. No.	Location
D601	I-16	IC1001	H-10
D602	J-16	IC1002	H-9
D603	J-14		
D604	H-18	Q601	G-18
D605	H-18	Q602	G-18
D606	H-14	Q603	G-18
D607	G-16	Q604	H-18
D701	B-7	Q605	H-18
D702	B-7	Q606	H-18
D703	B-8	Q607	G-14
D704	B-7	Q608	G-14
D705	C-7	Q609	H-14
D706	C-7	Q610	G-14
D707	B-6	Q611	G-15
D708	B-6	Q612	H-15
D709	C-7	Q613	H-15
D710	E-5	Q614	H-14
D711	C-9	Q701	C-9
D712	D-8	Q702	D-8
D713	E-7	Q703	E-8
D714	E-8	Q704	B-9
D715	D-6	Q705	D-9
D716	D-6	Q706	D-8
D717	D-6	Q707	E-9
D801	D-3	Q708	D-6
D802	D-3	Q709	D-6
D803	D-3	Q801	B-5
D804	E-3	Q802	B-5
D851	A-11	Q803	B-4
D852	B-11	Q804	D-4
D853	B-11	Q805	D-4
D855	C-11	Q806	D-2
D856	E-12	Q807	D-2
D857	E-12	Q808	D-2
D858	B-12	Q809	D-2
D1001	G-3	Q810	D-3
		Q811	D-3
IC601	G-17	Q812	D-3
IC801	C-3	Q813	D-3
IC802	D-4	Q814	D-2
IC803	D-4	Q815	C-1
IC851	D-11	Q851	D-11
IC902	J-6	Q852	B-12
IC951	J-3	Q854	D-12
IC952	J-2		
		1	L

Note:

- • component side.
- parts mounted on the conductor side.
- parts mounted on the conductor sPattern on the side which is seen.

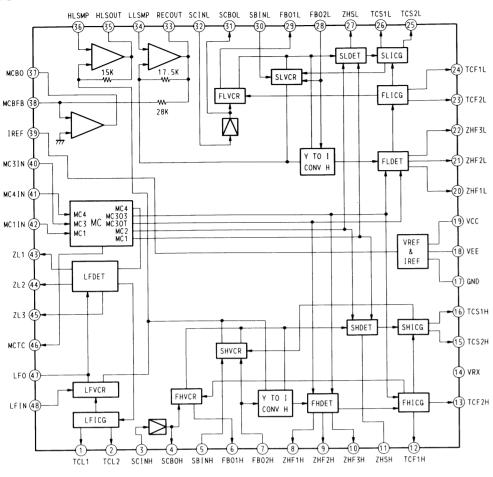
5-7. PRINTED WIRING BOARDS - SYSTEM CONTROL Section - • See page 16 for Circuit Boards Location and Semiconductor Lead Layouts.



TC-K808ES

● IC Block Diagram

IC1 CXA1417Q

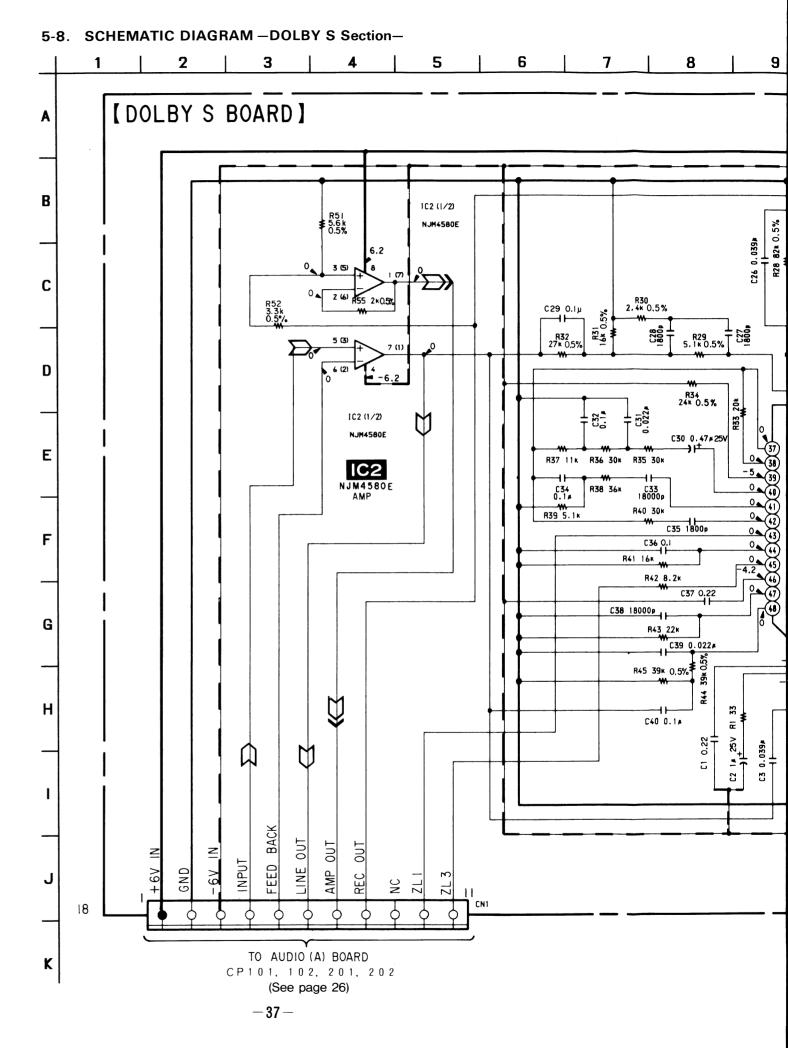


Note:

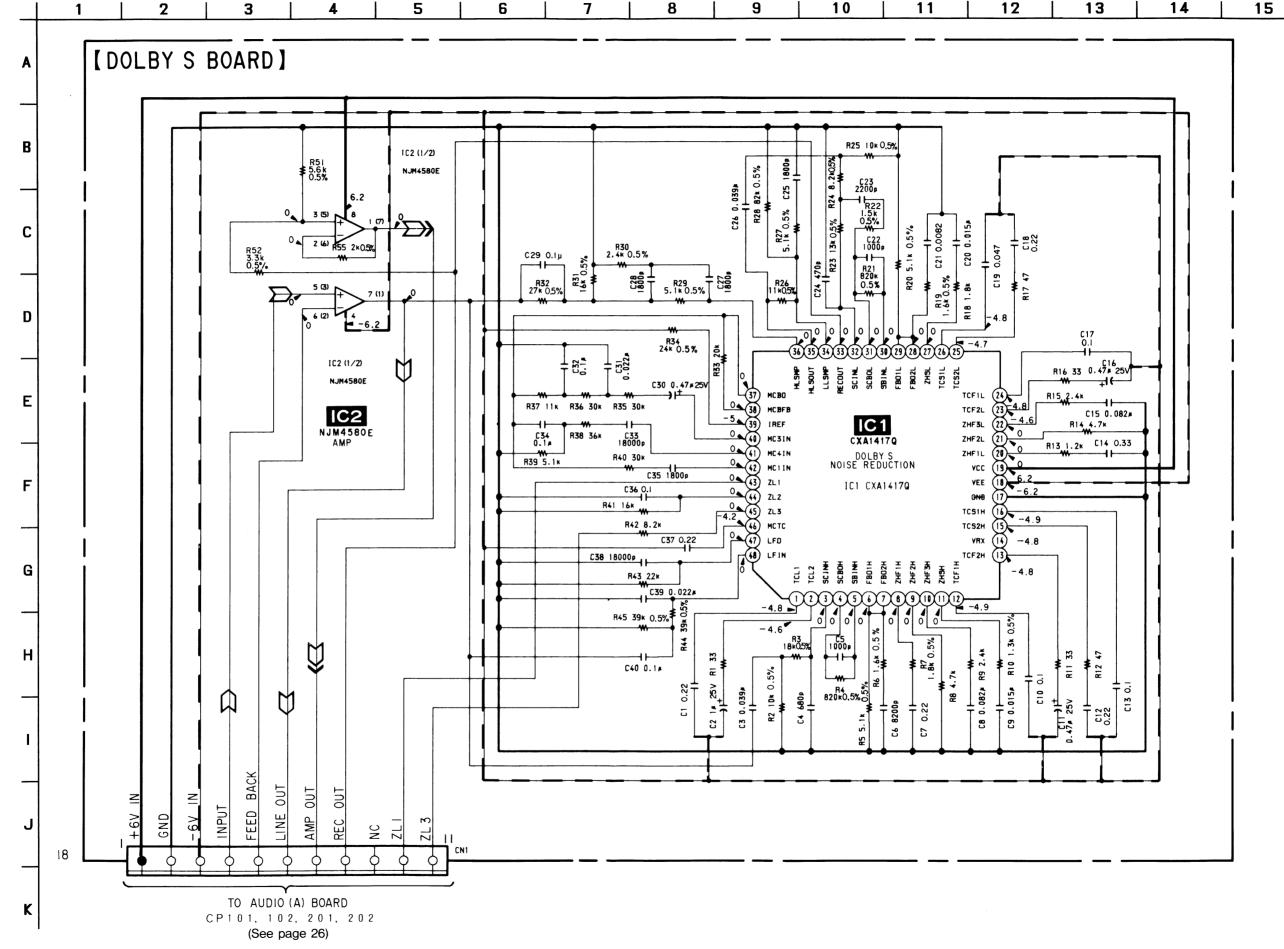
- All capacitors are in μF unless otherwise noted. pF: μμF 50WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and ¹/₄W or less unless otherwise specified.
- % : indicates tolerance.
- === : B+ Line
- · D Line
- --- : B-- Line
- Voltage is dc with respect to ground under no-signal conditions.
- Voltages are taken with a VOM (Input Impedance 10M ♀).
 Voltage variations may be noted due to normal production tolerances.
- Signal path.∑ : PB

∑> : REC

-36-



-37-



in μF unless otherwise noted. pF: $\mu \mu F$ not indicated except for electrolytics

n Ω and 1/4 W or less unless otherwise olerance.

respect to ground nditions.

with a VOM (Input Impedance 10M Ω). may be noted due to normal produc-

SECTION 6 EXPLODED VIEWS

NOTE:

- -XX, -X mean standardized parts, so they may have some differences from the original one.
- Color Indication of Appearance Parts Example:

KNOB, BALANCE (WHITE)... (RED)

Parts color

↑ Cabinet's color anticipated when ordering these items.

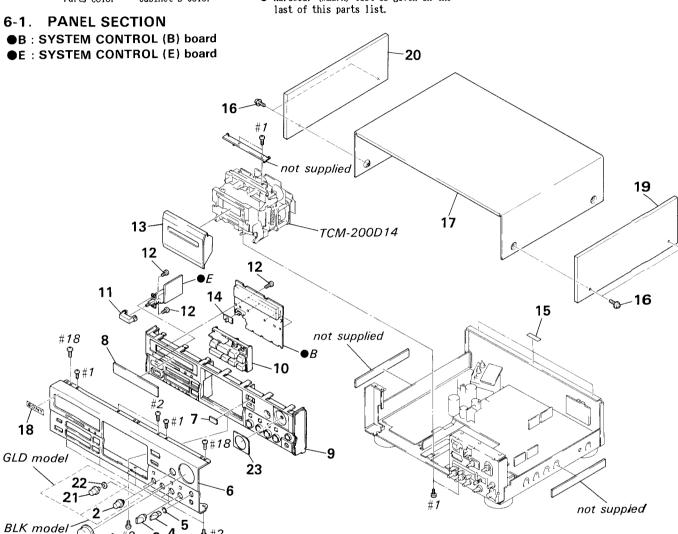
The mechanical parts with no reference number in the exploded views are not

since they are seldom required for routine service. Some delay should be

● Items marked " * " are not stocked

Supplied.
 Hardwear (#mark) list is given in the

The components identified by mark A or dotted line with mark. A are critical for safety.
Replace only with part number specified.



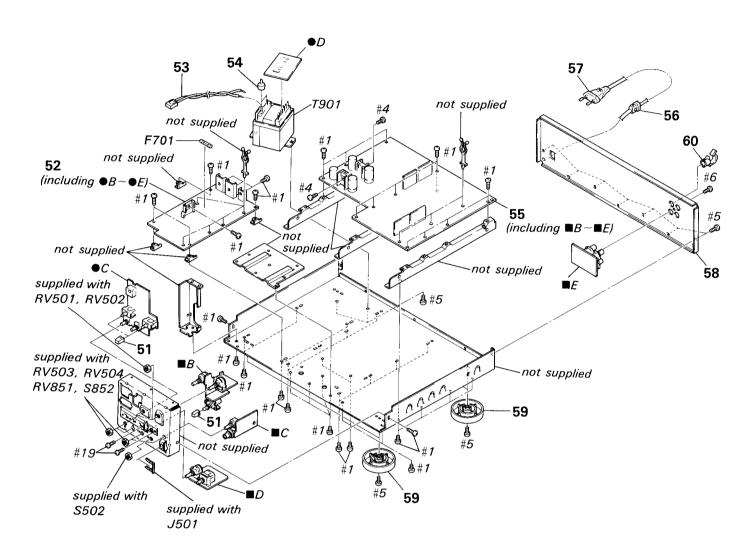
Re	ef. No.	Part No.	Description	Remark
	1	X-3362-289-1	KNOB (VOL) ASSY (BLK)	
	1	X-3365-344-1	KNOB (VOL) ASSY (GLD)	
	2		KNOB (BAL) ASSY (B) (BLK)	
	3		KNOB (DIA. 12) ASSY (B), FLAT	
	3	X-3363-490-1	KNOB (DIA. 12) ASSY (B), FLAT	(GLD)
	4	3-354-931-01	KNOB (DIA. 10) (BLK)	
	4	3-354-931-31	KNOB (DIA. 10) (GLD)	
	5	3-354-981-01	SPRING (SUS), RING (BLK)	
	5	3-356-935-01	SPRING (SUS), RING (GLD)	
	6	3-385-609-41	PANEL, FRONT (BLK)	
	6	3-385-609-51	PANEL, FRONT (GLD)	
	7	3-385-600-01	WINDOW (R)	
	8		WINDOW (METER)	
*	9		PANEL (BASE) (BLK)	
*	9	3-384-775-11	PANEL (BASE) (GLD)	
	10 10 11 11	X-3366-750-1 3-354-932-01	BUTTON (BLOCK) ASSY (BLK) BUTTON (BLOCK) ASSY (N) (GLD) BUTTON (POWER) (BLK) BUTTON (POWER) (GLD)	

Ref. No.	Part No.	Description	Renark
12	4-951-620-01	SCREW (2. 6X8), +BVTP	
13	X-3366-873-1	LID ASSY (J), CASSETTE (GLD)	
13	X-3366-874-1	LID ASSY (I), CASSETTE (BLK)	
14	4-922-518-01	KNOB (TIMER) (BLK)	
14	4-922-518-62	KNOB (TIMER) (GLD)	
15	3-831-441-XX	CUSHION, SPEAKER	
16	4-933-446-01	SCREW (SIDE PANEL)	
* 17	4-925-039-61	CASE (BLK)	
* 17	4-925-039-92	CASE (GLD)	
18	4-908-848-01	EMBLEM, SONY (BLK)	
18	4-942-568-11	EMBLEM (NO. 5), SONY (GLD)	
19	X-3340-188-1	PANEL (R) ASSY, SIDE (BLK)	
19	X-3363-178-2	PANEL (R) ASSY, SIDE (GLD)	
20	X-3340-187-1	PANEL (L) ASSY, SIDE (BLK)	
20	X-3363-177-2	PANEL (L) ASSY, SIDE (GLD)	
21	3-364-173-21	KNOB (BAL) (GLD)	
22	3-356-957-01	SPRING (GLD)	
		PLATE (VOL), ORNAMENTAL (BLK)	
23		PLATE (VOL), ORNAMENTAL (GLD)	

6-2. CHASSIS SECTION

●C : SYSTEM CONTROL (C) board ●D : SYSTEM CONTROL (D) board

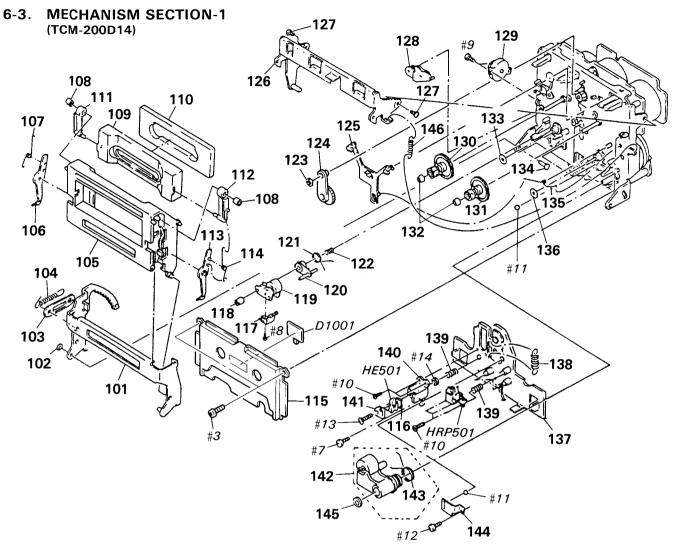
■B: AUDIO (B) board ■C: AUDIO (C) board ■D: AUDIO (D) board ■E: AUDIO (E) board



The components identified by mark $ilde{\Lambda}$ or dotted line with mark. $ilde{\Lambda}$ are critical for safety. Replace only with part number specified.

Ref. No.	Part No.	Description		Remark
51 51	3-380-952-01 3-380-952-11	BUTTON (BLK) BUTTON (GLD)		
* 52 * 53 * 54	A-2007-027-A 1-590-321-61	SYSTEM CONTROL BOARD, LEAD (WITH CONNECTOR) COVER (1P), TERMINAL	COMPLETE	
* 55 * 56 <u>1</u> 1∆57		AUDIO BOARD, COMPLETE BUSHING (2104), CORD CORD, POWER		

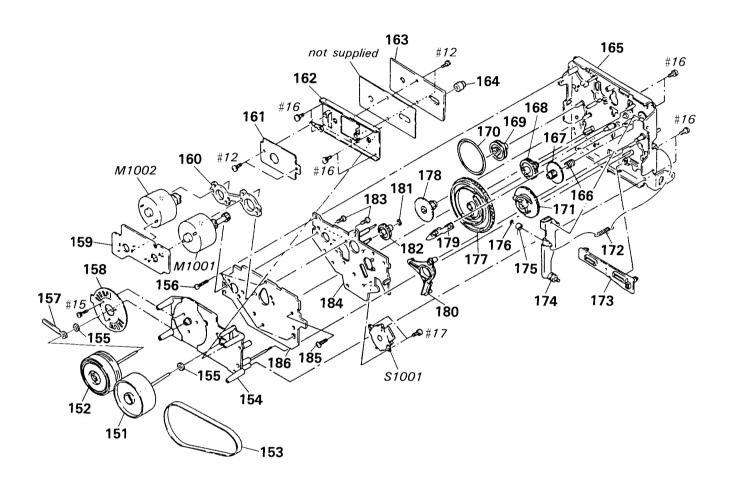
Ref. No.	Part No.	Description	Remark
* 58 * 58 59 59 * 60	3-387-981-11 X-3304-944-1	PANEL, BACK (BLK) PANEL, BACK (GLD) FOOT ASSY (BLK) FOOT ASSY (GLD) HOOK	
∱ F701 ∱ T901	1-532-285-00 1-423-685-11	FUSE, TIME-LAG (T1.25AL/250V) TRANSFORMER, POWER	



Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.
101	X-3362-671-1	HOLDER (BG) ASSY, CASSETTE		* 126	X-3356-608-1
102	3-558-708-11	WASHER, STOPPER		127	3-356-601-11
* 103	3-356-717-01	LEVER (JOINT)		128	X-3356-623-1
104	3-356-626-01	SPRING, TENSION		129	3-319-224-41
105		HOLDER (D9) ASSY, CASSETTE		130	X-3356-629-1
106	3-356-932-01			131	X-3356-627-1
107	3-356-927-01	SPRING (LEFT), TORSION		132	3~362-308-01
108	3-356-946-01	BUSHING		133	3-356-713-01
109	3-356-928-11	PLATE (A), ORNAMENTAL		134	3-356-710-01
* 110	3-356-929-01	ABSORBENT, VIBRATION		135	3-356-619-01
111	3-356-933-01	LEVER (LB)		136	3-332-763-01
112	3-356-931-01	LEVER (RB)		* 137	X-3362-199-1
113				138	3-356-658-01
114	3-356-926-01	SPRING (RIGHT), TORSION		139	3-564-121-00
115	X-3356-613-1	PLATE ASSY, ORNAMENTAL		* 140	3-576-977-00
* 116	1-608-268-00	PC BOARD, ERASE HEAD		141	3-318-433-01
117	3-389-445-01	GUIDE (SL), TAPE		142	X-3356-620-1
118	3-356-652-01	NUT (PINCH LEVER S)		143	3-356-672-01
119	X-3356-621-1	LEVER (PINCH LEVER S) ASSY		144	3-356-656-01
120	3-356-660-01	LEVER (PS)		145	3-669-596-00
121		SPRING (PINCH LEVER S), TOR	SION	146	3-376-854-01
122	3-356-657-01	SPRING (PS), COMPRESSION		D1001	8-719-980-85
123	3-669-465-11	WASHER (1.5), STOPPER		HE501	1-543-836-11
124	X-3356-641-1	LEVER (FR2) ASSY		HRP501	1-543-742-11
125	3-356-614-01	SLIDER (BRAKE)		1	

Ref. No.	Part No.	Description	Remark
* 126	X-3356-608-1	LEVER (LIFTER) ASSY	
127	3-356-601-11	SCREW, STEP	
128	X-3356-623-1	LEVER (BT) ASSY	
		DAMPER, SMALL	
130	X-3356-629-1	GEAR (S) ASSY	
131		GEAR (T) ASSY	
132			
	3-356-713-01		
134	3-356-710-01	SHAFT (LEFT) (CASSETTE HOLDER)	
135	3-356-619-01	SPRING (B), TORSION	
136		RING, OIL RESERVOIR	
		SLIDER (HEAD CHASSIS D) ASSY	
		SPRING (LIMITER H), TENSION	
139	3-564-121-00	SPRING, COMPRESSION	
* 140	3-576-977-00	BRACKET, E. HEAD	
	3-318-433-01		
142	X-3356-620-1	LEVER (PINCH LEVER T) ASSY	
143	3-356-672-01	SPRING (PINCH LEVER T), TORSION	
144	3-356-656-01	SPRING (HEAD PC BOARD), LEAF	
145	3-669-596-00	WASHER (2.3), STOPPER	
		SPRING, TENSION	
		DIODE SLF-325C	
HE501	1-543-836-11	HEAD, MAGNETIC (ERASE)	
HRP501	1-543-742-11	HEAD, MAGNETIC (REC/PB)	

6-4. MECHANISM SECTION-2 (TCM-200D14)



Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
151	X-3362-284-1	FLYWHEEL (S2. 3) ASSY		171	3-356-616-01	GEAR (LOADING CAM)	
152		FLYWHEEL (DT) ASSY		172		SPRING, TENSION	
153		BELT (CAPSTAN)		173		SLIDER (PAUSE)	
154	X-3362-281-1	CHASSIS (D2. 3) ASSY		* 174	X-3356-606-1	LEVER (LOADING) ASSY	
155		WASHER (CAPSTAN)		175		ROLLER (LOADING)	
156	3-381-811-01	SCREW (PTPWH) (2X18)		176	3-558-708-21	WASHER, STOPPER	
157	3-703-150-11	STOPPER, WIRING		177		GEAR (MODE CAM C)	
158	1-632-779-11	PC BOARD, FG		178	3-356-606-01		
* 1 59	1-632-741-11	REEL MOTOR BOARD		179		LEVER (SELECTION)	
* 160	3-356-628-01	SPACER (MOTOR)		180		LEVER (MODE)	
* 161	1-632-746-11	COMPARATOR BOARD		181	3-669-465-00	WASHER (1.5), STOPPER	
* 162	X-3362-282-1	BRACKET (THRUST RETAINER) ASSY	į	182		GEAR (COMMUNICATION B)	
163	A-2006-154-A	CAPSTAN C. O. C BOARD, COMPLETE		183		SCREW (+P 2. 6X6. 5)	
164	3-364-135-01	RETAINER (S), THRUST		* 184		BRACKET (MOTOR D) ASSY	
165	X-3356-622-1	CHASSIS (C) ASSY, MECHANICAL		185		SCREW (+PTPWH 2X25)	
166	3-356-605-01	SPRING, COMPRESSION		* 186	1-632-740-11	MD BOARD	
167	3-356-609-01	GEAR (LOADING)		M1001		MOTOR (REEL R) ASSY	
168	3-356-703-01	GEAR (COMMUNICATION C)		M1002		MOTOR (ASSIST) ASSY	
169	3-356-607-01	PULLEY (MODE)				ENCODER, ROTARY	
170	3-356-603-01	BELT (MODE)			200 11	and and the state of the state	

SECTION 7 ELECTRICAL PARTS LIST

AUDIO DOLBY S

NOTE:

- Due to standardization, replacements in the parts list may be different from the parts specified in the diagrams or the components used on the set.
- -XX and -X mean standardized parts, so they may have some difference from the original one.
- RESISTORS All resistors are in ohms. METAL: Metal-film resistor. METAL OXIDE: Metal oxide-film resistor. F:nonflammable
- Items marked "+" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- SEMICONDUCTORS In each case, $u:\mu$, for example: uA ..: μA.. uPA..: μPA. uPB..: μPB.. uPC..: μPC.. uPD..: μPD.

CAPACITORS

uF: μF COILS

uΗ: μН

The components identified by mark A or dotted line with mark. ⚠ are critical for safety. Replace only with part number specified.

When indicating parts by reference number, please include the board.

Ref. No.	Part No.	Description		Remark		Ref. No.	Part No.	Description		Remark	
*	- ——— A-2007-026-A	AUDIO BOARD, CO	OMPLETE	_		C31	1-104-555-11	FILM CHIP	0. 022uF	 5%	16 V
		*********	*****			C32	1-104-563-11	FILM CHIP	0. 1uF	5%	16 V
						C33	1-163-024-00	CERAMIC CHIP	0. 018uF	10%	50 V
		DOLBY S BOARD				C34	1-137-306-11	FILM CHIP	0. 1uF	5%	16 V
		******				C35	1-163-012-00	CERAMIC CHIP	0. 0018uF	10%	50 V
	7-682-147-15	SCREW, TR				C36	1-165-319-11	CERAMIC CHIP	0. 1uF		50 V
*	4-886-555-00	HEAT SINK			Ì	C37		CERAMIC CHIP	0. 22uF		25 V
*	4-942-204-01	PLATE, GROUND				C38		CERAMIC CHIP	0. 018uF	10%	50 V
						C39	1-104-555-11		0. 022uF	5%	16 V
		< CAPACITOR >				C40	1-137-306-11	FILM CHIP	0. 1uF	5%	16 V
C1		CERAMIC CHIP	0. 22uF		25V	C101	1-130-487-00		0. 022uF	5%	50 V
C2		TANTALUM CHIP	1uF	20%	20V	C102	1-126-049-11		22uF	20%	50 V
C3	1-137-301-11		0. 039uF	5%	16V	C103	1-126-049-11		22uF	20%	50 V
C4	1-163-007-11	CERAMIC CHIP	680PF	10%	50V	C104	1-130-489-00		0. 033uF	5%	50 V
C5	1-163-009-11	CERAMIC CHIP	0. 001uF	10%	50V	C105	1-130-477-00	MYLAR	0. 0033uF	5%	50 V
C6	1-164-717-11	CERAMIC CHIP	0. 0082uF	5%	50V	C106	1-102-965-00		39PF	5%	50 V
C7	1-164-222-11	CERAMIC CHIP	0. 22uF		25V	C107	1-106-343-00		1000PF	5%	20 0 V
C8	1-104-562-11	FILM CHIP	0. 082uF	5%	16V	C108	1-130-475-00		0. 0022uF	5%	50 V
C9	1-104-553-11	FILM CHIP	0. 015uF	5%	16V	C109	1-130-475-00		0. 0022uF	5%	50 V
C10	1-165-319-11	CERAMIC CHIP	0. 1uF		50V	C110	1-130-478-00	MYLAR	0. 0039uF	5%	50 V
C11	1-135-145-11	TANTALUM CHIP	0. 47uF	10%	35V	C111	1-136-173-00		0. 47uF	5%	50 V
C12	1-164-222-11	CERAMIC CHIP	0. 22uF		25V	C112	1-136-167-00	FILM	0. 15uF	5%	50 V
C13	1-165-319-11	CERAMIC CHIP	0. 1uF		50V	C113	1-136-155-00	FILM	0. 015uF	5%	50 V
C14	1-162-568-11	CERAMIC CHIP	0. 3 3uF	10%	16V	C114	1-124-903-11	ELECT	1uF	20%	50 V
C15	1-104-562-11	FILM CHIP	0. 082uF	5%	16V	C115	1-136-169-00	FILM	0. 22uF	5%	50 V
C16	1-135-145-11	TANTALUM CHIP	0. 47uF	10%	35V	C116	1-136-163-00	FILM	0. 068uF	5%	50 V
C17	1-165-319-11	CERAMIC CHIP	0. 1uF		50V	C117	1-136-162-00		0. 056uF	5%	50 V
C18	1-164-222-11	CERAMIC CHIP	0. 22uF		25V	C118	1-124-903-11		1uF	20%	9V
C19	1-163-035-00	CERAMIC CHIP	0. 047uF		50V	C119	1-130-480-00		0. 0056uF	5%	50 V
C20	1-104-553-11	FILM CHIP	0. 015uF	5%	16V	C120	1-136-153-00	FILM	0. 01uF	5%	50 V
C21	1-164-717-11	CERAMIC CHIP	0. 0082uF	5%	50V	C121	1-126-049-11		22uF	20%	50 V
C22	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V	C122	1-126-049-11		22uF	20%	IJ\blacktriangledown
C23		CERAMIC CHIP	0. 0022uF	10%	100V	C123	1-126-049-11		22uF	20%	50 V
C24		CERAMIC CHIP	470PF	10%	50V	C124	1-126-059-11		10uF	20%	٩V
C25	1-163-012-00	CERAMIC CHIP	0. 0018uF	10%	50V	C125	1-126-049-11	ELECT	22uF	20%	V
C26	1-137-301-11	FILM CHIP	0. 039uF	5%	16V	C126	1-126-049-11	ELECT	22uF	20%	5) V
C27	1-163-012-00	CERAMIC CHIP	0.0018uF	10%	50V	C127	1-123-382-00	ELECT	3. 3uF	20%	10 0 V
C28		CERAMIC CHIP	0.0018uF	10%	50V	C129	1-124-925-11	ELECT	2. 2uF	20%	10 0 V
C29	1-137-306-11	FILM CHIP	0. 1uF	5%	16V	C130	1-130-475-00		0. 0022uF	5%	9 V
C30	1-135-145-11	TANTALUM CHIP	0. 47uF	10%	35V	C132	1-126-059-11	ELECT	10uF	20%	90 V

AUDIO DOLBY S

Ref. No.	Part No.	Description		F	emark	Ref. No.	Part No.	Description		i	Remark
C133	 1-126-163-11	ELECT	4. 7uF	20%	50V	C204	1-130-489-00	MYLAR	0. 033uF	5%	50V
C134	1-126-163-11	ELECT	4. 7uF	20%	50V	C205	1-130-477-00		0. 0033uF	5%	507
C135	1-126-163-11	ELECT	4. 7uF	20%	50V	C206	1-102-965-00		39PF	5%	50V
C136	1-102-518-11	CERAMIC	33PF	5%	50V	C207	1-106-343-00		1000PF	5%	200V
C137	1-130-475-00	MYLAR	0. 0022uF	5%	50 V	C208	1-130-475-00		0. 0022uF	5%	50V
C138	1-130-475-00	MYLAR	0. 0022uF	5%	50V	C209	1-130-475-00	MYLAR	0. 0022uF	5%	50V
C139	1-130-478-00	MYLAR	0. 0039uF	5%	50V	C210	1-130-478-00		0. 0039uF	5%	50V
C140	1-136-173-00	FILM	0. 47uF	5%	50V	C211	1-136-173-00		0. 47uF	5%	50V
C141	1-136-167-00	FILM	0. 15uF	5%	50V	C212	1-136-167-00		0. 15uF	5%	50V
C142	1-136-155-00	FILM	0. 015uF	5%	50V	C213	1-136-155-00		0. 015uF	5%	50V
C143	1-124-903-11	ELECT	1uF	20%	50V	C214	1-124-903-11	ELECT	1uF	20%	50V
C144	1-136-169-00	FILM	0. 22uF	5%	50V	C215	1-136-169-00		0. 22uF	5%	50V
C145	1-136-163-00	FILM	0. 068uF	5%	50V	C216	1-136-163-00		0. 068uF	5%	50V
C146	1-136-162-00	FILM	0. 056uF	5%	50V	C217	1-136-162-00		0. 056uF	5%	50V
C147	1-124-903-11	ELECT	1uF	20%	50V	C218	1-124-903-11		1uF	20%	50V
C148	1-130-480-00	MYLAR	0. 0056uF	5%	50V	C219	1-130-480-00	MYLAR	0. 0056uF	5%	50V
C149	1-136-153-00	FILM	0. 01uF	5%	50V	C220	1-136-153-00		0. 01uF	5%	50V
C150	1-126-059-11	ELECT	10uF	20%	50V	C221	1-126-049-11		22uF	20%	50V
C151	1-126-059-11	ELECT	10uF	20%	50V	C222	1-126-049-11		22uF	20%	50V
C152	1-126-049-11	ELECT	22uF	20%	50V	C223	1-126-049-11		22uF	20%	50V
C153	1-126-059-11	ELECT	10uF	20%	50V	C224	1-126-059-11	ELECT	10uF	20%	50V
C154	1-126-049-11	ELECT	22uF	20%	50V	C225	1-126-049-11		22uF	20%	50V
C155	1-126-049-11	ELECT	22uF	20%	50V	C226	1-126-049-11		22uF	20%	50V
C156	1-106-347-00	MYLAR	1500PF	5%	200V	C227	1-123-382-00		3. 3uF	20%	100V
C157	1-106-343-00	MYLAR	1000PF	5%	200V	C229	1-136-165-00		0. 1uF	5%	50V
C158	1-130-474-00	MYLAR	0. 0018uF	5%	50V	C232	1-126-059-11	ELECT	10uF	20%	50V
C159	1-126-059-11	ELECT	10uF	20%	50V	C233	1-126-163-11		4. 7uF	20%	50V
C160	1-130-491-00		0. 047uF	5%	50V	C234	1-126-163-11		4. 7uF	20%	50V
C161	1-130-485-00	MYLAR	0. 015uF	5%	50V	C235	1-126-163-11		4. 7uF	20%	50V
C162	1-130-487-00	MYLAR	0. 022uF	5%	50V	C236	1-102-518-11		33PF	5%	50V
C163	1-130-486-00	MYLAR	0. 018uF	10%	50V	C237	1-130-475-00	MYI.AR	0. 0022uF	5%	50V
C164	1-130-487-00	MYLAR	0. 022uF	5%	50V	C238	1-130-475-00 !		0. 0022uF	5%	50V
C165	1-130-486-00	MYLAR	0. 018uF	10%	50V	C239	1-130-478-00		0. 0022ur 0. 0039uF	5%	50V
C166	1-126-049-11	ELECT	22uF	20%	50V	C240	1-136-173-00 I		0. 47uF	5%	50V
C167	1-106-347-00		1500PF	5%	200V	C241	1-136-167-00 I		0. 47th 0. 15uF	5%	50V
C168	1-136-935-11	FILM	22PF	5%	630V	C242	1-136-155-00 E	PTI.M	0. 015uF	5%	50V
C169	1-136-157-00	FILM	0. 022uF	5%	50V		1-124-903-11 F		1uF	20%	50V
C170	1-136-161-00 1	FILM	0. 047uF	5%	50V		1~136-169-00 F		0. 22uF	5%	50V
C171	1-130-468-00 !	MYLAR	560PF	5%	50V		1-136-163-00 F		0. 22di 0. 068uF	5%	
C172	1-136-803-11	FILM	560PF	5%	630V		1-136-162-00 F		0. 056uF	5%	50V 50V
C173	1-136-433-11 H	FILM	100PF	5%	630V	C247	1-124-903-11 E	n cot	17	0.00	FOU
C174	1-136-153-00 H		0. 01uF	5%	50V				luF	20%	50V
C175	1-162-211-31 (33PF	5%	50V		1-130-480-00 M		0. 0056uF	5%	50V
C176	1-124-925-11 H		2. 2uF	20%	100V		1-136-153-00 F		0. 01uF	5%	50V
C178	1-126-059-11		10uF	20%	50V		1-126-059-11 E 1-126-059-11 E		10uF 10uF	20% 20%	50V 50V
C179	1-110-340-11 N	NYI AR	270PF	5%	50V						
	1-130-487-00 N		0. 022uF	5%	50V		1-126-049-11 E		22uF	20%	50V
C202	1-126-049-11 E		0. 022ur 22uF	20%	50V		1-126-059-11 E		10uF	20%	50V
	1-126-049-11 E		22ur 22uF	20%	50V 50V		1-126-049-11 E		22uF	20%	50V
	- 100 010 11 1		LLUI	TO 10	301	C255	1-126-049-11 E	LEUI	22uF	20%	50V

Ref. No.	Part No.	Description	Remark		ark	Ref. No.	Part No.	Description		Remark	
C256	1-106-347-00	MYLAR	1500PF	5%	200V	C530	1-126-163-11	ELECT	4. 7uF	20%	50V
C257	1-106-343-00		1000PF	5%	200V	C531	1-126-163-11		4. 7uF	20%	50V
C258	1-130-474-00		0. 0018uF	5%	50V	C532	1-124-925-11		2. 2uF	20%	100V
C259	1-126-059-11		10uF	20%	50V	C533	1-126-059-11		10uF	20%	50V
C260	1-130-491-00		0. 047uF	5%	50V	C534	1-124-477-11		47uF	20%	25V
C261	1-130-485-00	MYLAR	0. 015uF	5%	50V	C536	1-124-907-11	ELECT	10uF	20%	50V
C262	1-130-487-00	MYLAR	0. 022uF	5%	50V	C537	1-124-925-11	ELECT	2. 2uF	20%	100V
C263	1-130-486-00	MYLAR	0. 018uF	10%	50V	C538	1-162-282-31	CERAMIC	100PF	10%	50V
C264	1-130-487-00	MYLAR	0. 022uF	5%	50V	C539	1-136-228-11	FILM	0. 0012uF	5%	100V
C265	1-130-486-00	MYLAR	0. 018uF	10%	50V	C540	1-136-228-11	FILM	0. 0012uF	5%	100V
C266	1-126-049-11	ELECT	22uF	20%	50V	C541	1-136-233-11	FILM	0. 0047uF	5%	100V
C267	1-106-347-00	MYLAR	1500PF	5%	200V	C542	1-124-907-11	ELECT	10uF	20%	50V
C268	1-136-935-11	FILM	22PF	5%	630V	C543	1-136-559-11		0. 0047uF	5%	630V
C269	1-136-157-00	FILM	0. 022uF	5%	50V	C544	1-107-045-00	MICA	3. 9PF		500V
C270	1-136-161-00	FILM	0. 047uF	5%	50V						
								< CONNECTOR >			
C271	1-130-468-00		560PF	5%	50V						
C272	1-136-803-11		560PF	5%	630V	* CN1		TERMINAL (LEAD	-		
C273	1-136-433-11		100PF	5%	630V			PLUG, CONNECTOR			
C274	1-136-153-00		0. 01uF	5%	50V			PIN, CONNECTOR			
C275	1-162-211-31	CERAMIC	33PF	5%	50V			PLUG, CONNECTOR			
2020		DI DAM	0.05	0.00	1000	* UNDU4	1-564-519-11	PLUG, CONNECTOR	4P		
C276	1-124-925-11		2. 2uF	20%	100V	· CNEOF	1 564 500 11	DI LIC CONVECTOR	on.		
C278	1-126-059-11		10uF	20%	50V			PLUG, CONNECTOR			
C279	1-110-340-11		270PF	5%	50V			PLUG, CONNECTOR			
C501	1-126-066-11		470uF	20%	63V			PLUG, CONNECTOR			
C502	1-126-066-11	ELEUI	470uF	20%	63V			PIN, CONNECTOR PIN, CONNECTOR			
CEOS	1-102-518-11	CEDAMIC	33PF	5%	50V	+ UN303	1-300-001-00	FIN, CONNECTOR	Jr.		
C503 C504	1-102-518-11		33PF	5%	50V	* CN510	1-564-337-51	PIN, CONNECTOR	1D		
C504 C505	1-102-316-11		100uF	20%	50V			PIN, CONNECTOR			
C506	1-136-153-00		0. 01uF	5%	50V			PIN, CONNECTOR			
C507	1-136-153-00		0. 01uF	5%	50V	. 011012	1 000 000 11	rin, commedicati	Ji		
0007	1 130 133 00	IIIm	0.010.	0.4	•			< CONPOSITION C	IRCHIT BLOCK	>	
C508	1-124-922-11	ELECT	1000uF	20%	63V					•	
C509	1-124-922-11		1000uF	20%	63V	CP103	1-236-087-11	FILTER, LOW PAS	S		
C510	1-126-059-11		10uF	20%	50V			FILTER, LOW PAS			
C511	1-126-059-11		10uF	20%	50V						
C513	1-126-163-11		4. 7uF	20%	50V			< DIODE >			
C514	1-126-163-11	ELECT	4. 7uF	20%	50V	D101	8-719-987-63	DIODE 1N4148M			
C515	1-164-159-11	CERAMIC	0. 1uF		50V	D102	8-719-987-63	DIODE 1N4148M			
C516	1-124-902-00	ELECT	0. 47uF	20%	50V	D103	8-719-987-63	DIODE 1N4148M			
C517	1-124-477-11	ELECT	47uF	20%	25V	D104	8-719-987-63	DIODE 1N4148M			
C518	1-130-474-00	MYLAR	0. 0018uF	5%	50V	D105	8~719-987-63	DIODE 1N4148M			
C519	1-130-474-00	MYLAR	0. 0018uF	5%	50V	D106	8-719-987-63				
C520	1-136-157-00		0. 022uF	5%	50V	D107	8-719-000-54				
C521	1-136-157-00		0. 022uF	5%	50V	D108	8-719-987-63				
C522	1-126-163-11		4. 7uF	20%	50V		8-719-987-63				
C523	1-126-163-11	ELECT	4. 7uF	20%	50V	D201	8-719-987-63	DIODE 1N4148M			
CEOC	1 190 050 44	EI ECT	10E	200	50V	D202	8-719-987-63	DIODE 1N4148M			
C526 C527	1-126-059-11 1-126-059-11		10uF 10uF	20% 20%	50V 50V	D202	8-719-987-63				
C527	1-126-059-11		10uF	20%	50V	D203	8-719-987-63				
C529	1-126-059-11		10uF	20%	50V	D204 D205	8-719-987-63				
0323	1 170-032-11	PPPAI	1001	20/0	301	D200	C 110 301 00	710PF 104140M			

Ref. No.	Part No.	Desc	ription	Remark	Ref. No.	Part No.	Description	
D206	8-719-987-63	DIOD	E 1N4148M			-	< JACK >	-
D207	8-719-000-54	DIODI	E UZL-6L3					
D208	8-719-987-63	DIOD	E 1N4148M		J501	1-507-796-71	JACK (HEADP	HONES)
D209	8-719-987-63	DIODI	E • 1N4148M		* J502			P (LINE IN/OUT)
D501	8-719-933-41	DIODI	E HZS6C3L					· (==== ==, ===,
D503	8-719-987-63	DIODI	E 1N4148M				< COIF >	
D504	8-719-987-63	DIODI	E 1N4148M		L101	1-408-927-11	INDUCTOR	18mH
D505	8-719-987-63	DIODI	E 1N4148M		L102	1-408-920-00	INDUCTOR	4. 7mH
D506	8-719-987-63	DIODI	E 1N4148M		L103	1-408-918-11		3. 3mH
D507	8-719-987-63	DIODI	E 1N4148M		L104	1-408-916-11		2. 2mH
DEGG	0.740.007.00	D. I.O.D.			L105	1-408-929-00		27mH
D508	8-719-987-63							
D509	8-719-987-63				L201	1-408-927-11		18mH
D510	8-719-987-63		_		L202	1-408-920-00		4. 7mH
D511	8-719-987-63				L203	1-408-918-11		3. 3mH
D512	8-719-987-63	DIODI	E 1N4148M		L204	1-408-916-11		2. 2mH
DE10	0 710 007 62	DIODI	7 1 N 4 1 4 0 W		L205	1-408-929-00	INDUCTOR	27mH
D513 D514	8-719-987-63 8-719-987-63						/ DILOT LANG	
D514 D515	8-719-987-63						< PILOT LAM	' >
D516	8-719-987-63				DIEGI	1 510 471 01	LOWD DILOT	
D510	8-719-987-63					1-518-471-31	•	
D317	0-719-907-03	ועטוע	E 1N4148M		PLSUZ	1-518-471-31	LAMP, PILUI	
D518	8-719-987-63	DIODE	E 1N4148M				< IC LINK >	
D519	8-719-987-63	DIODE	E 1N4148M					
D520	8-719-987-63	DIODE	1N4148M			1-532-605-00		
D521	8-719-987-63	DIODE				1-532-605-00		
D522	8-719-987-63	DIODE	1N4148M			1-532-605-00		
D523	8-719-987-63	DIODE	E 1N4148M		<u>/1</u> \P3304	1-532-605-00	LINK, IC ICE	'-N1U (U. 4A)
D524	8-719-987-63						< TRANSISTOR	1.5
D525	8-719-987-63	DIODE						• /
D526	8-719-987-63	DIODE	1N4148M		Q101	8-729-922-37	TRANSISTOR	2SD2144S-UVW
					Q102	8-729-922-37		2SD2144S-UVW
		< IC	>		Q103	8-729-203-06		2SK30A-GR2
					Q104	8-729-203-06		2SK30A-GR2
IC1	8-752-056-51		CXA1417Q		Q105	8-729-203-06		2SK30A-GR2
IC2	8-759-711-85		NJM4580E-D					
	8-759-602-01		M5220P		Q106	8-729-203-06		2SK30A-GR2
	8-752-018-80		CX20188		Q107	8-729-922-37		2SD2144S-UVW
1C503	8-759-710-59	IC	NJM4580D-D		Q108	8-729-922-37		2SD2144S-UVW
					Q109	8-729-922-37		2SD2144S-UVW
	8-759-145-58		uPC4558C		Q110	8-729-203-06	TRANSISTOR	2SK30A-GR2
	8-759-634-50		M5218AL					
	8-759-145-58		uPC4558C		Q111	8-729-203-06	TRANSISTOR	2SK30A-GR2
	8-759-145-58		uPC4558C		Q112	8-729-922-37	TRANSISTOR	2SD2144S-UVW
IC510	8-759-145-58	IC	uPC4558C		Q113	8-729-922-37	TRANSISTOR	2SD2144S-UVW
					Q114	8-729-922-37		2SD2144S-UVW
	8-752-018-80		CX20188		Q115	8-729-922-37	TRANSISTOR	2SD2144S-UVW
	8-759-710-59		NJM4580D-D					
	8-759-106-56		uPC1297CA		Q116	8-729-922-37		2SD2144S-UVW
	8-759-145-58		uPC4558C		Q201	8-729-922-37	TRANSISTOR	2SD2144S-UVW
IC517	8-759-634-51	IC	M5218AP		Q202	8-729-922-37	TRANSISTOR	2SD2144S-UVW
					Q203	8-729-203-06	TRANSISTOR	2SK30A-GR2
					Q204	8-729-203-06	TRANSISTOR	2SK30A-GR2
					Q205	8-729-203-06	TRANSISTOR	2SK30A-GR2
								_

The components identified by mark A or dotted line with mark.
A are critical for safety.
Replace only with part number specified.

Remark

Ref. No.	Part No.	Description			Rema	rk	Ref. No.	Part No.	Descri	iption			Remark
Q206	8-729-203-06	TRANSISTOR	2SK30A-GR	2		_	R13	1-216-051-00	METAL.	CHIP	1. 2K	5%	1/10W
Q207	8-729-922-37		2SD2144S-				R14	1-216-065-00			4. 7K		1/10W
Q208	8-729-922-37		2SD2144S-				R15	1-216-058-00			2. 4K		1/10W
Q209	8-729-922-37		2SD2144S-				R16	1-216-013-00			33	5%	1/10W
Q210	8-729-203-06		2SK30A-GR				R17	1-216-017-00			47	5%	1/10W
Q210	0 723 203 00	HUMBISTON	ZDIIJUN GII	L			1117	1 210 017 00	MCINU	VIIII	••	0.4	1/10#
Q211	8-729-203-06	GOTO I DAAGT	2SK30A-GR	2			R18	1-216-055-00	METAI	CHIP	1. 8K	5 %	1/10W
Q211	8-729-922-37		2SD2144S-				R19	1-216-656-11				0.5%	
Q212 Q213	8-729-922-37		2SD2144S-				R20	1-216-668-11					1/10W
	8-729-922-37		2SD2144S				R21	1-218-774-11					1/10W
Q214 Q215			2SD2144S-				R22	1-216-655-11					1/10W
QZ13	8-729-922-37	Inanaiaion	20021440	UTN			ILL	1 210 000 11	mL 171L	VIIII	I. JII	0. 0/8	1/10#
Q216	8-729-922-37	TDANCICTOD	2SD2144S-	IIIW			R23	1-216-678-11	METAI	CHIP	13K	0.5%	1/10W
			2SD21445-L				R24	1-216-673-11				0.5%	
Q501	8-729-141-89						R25	1-216-675-11			10K		1/10W
Q502	8-729-141-83		2SB1094-L				R26	1-216-676-11			11K		1/10W
Q503	8-729-224-62		2SK246-GF										
Q504	8-729-224-62	IKANSISIUK	2SK246-GF	į			R27	1-216-668-11	METAL	Unir	J. 1N	U. 3%	1/10W
0505	0 500 000 05	mn a Matamon	0000000	·r			Dao	1 910 007 11	METAL	CUID	ดอน	0 50	1 /105
Q505	8-729-620-05		2SC2603-E				R28	1-216-697-11 1-216-668-11			82K		1/10W
Q506	8-729-119-76		2SA1175-H				R29						1/10W
Q507	8-729-620-05		2SC2603-E				R30	1-216-660-11					1/10W
Q508	8-729-119-76		2SA1175-H				R31	1-216-680-11			16K		1/10W
Q509	8-729-922-37	TRANSISTOR	2SD2144S-	UVW			R32	1-216-685-11	METAL	CHIP	27K	U. 5%	1/10W
		mp + varamop	00004440	177.80			DOO	1 010 000 00	MPTAL	CUID	901/	ra	1 /1 055
Q510	8-729-922-37		2SD2144S-	UVW			R33	1-216-080-00			20K	5%	1/10W
Q511	8-729-900-89		DTC144ES				R34	1-216-684-11			24K		1/10W
Q514	8-729-900-89		DTC144ES				R35	1-216-084-00			30K	5%	1/10W
Q515	8-729-922-37		2SD2144S-				R36	1-216-084-00			30K	5% 5%	1/10W
Q516	8-729-922-37	TRANSISTOR	2SD2144S-	·UVW			R37	1-216-074-00	METAL	CHIP	11K	5%	1/10W
0740		mp. Natamon	D#1444FC				DOO	1 010 000 00	MPTAL	CLASE	O.C.I.	ro.	1 /1 (1)
Q519	8-729-900-61		DTA114ES				R38	1-216-086-00			36K	5% 5%	1/10W
Q520	8-729-900-89		DTC144ES				R39	1-216-066-00			5. 1K		1/10W
Q521	8-729-900-61		DTA114ES				R40	1-216-084-00			30K	5%	1/10W
Q522	8-729-900-80		DTC114ES				R41	1-216-078-00			16K	5% 5%	1/10W
Q523	8-729-900-80	TRANSISTOR	DTC114ES				R42	1-216-071-00	METAL	CHIP	8. 2K	5%	1/10W
		mp. Natamon	D#044 4E0				D40	1 010 001 00	METAL	CILLD	0.017	FW	4 /4 ()[[[
Q524	8-729-900-80		DTC114ES				R43	1-216-081-00			22K	5%	1/10W
Q525	8-729-900-80		DTC114ES	,			R44	1-216-689-11			39K		1/10W
Q526	8-729-281-52		2SC1815-Y	!			R45	1-216-689-11			39K		1/10W
Q527	8-729-194-57		2SC945-P				R51	1-216-669-11				0.5%	
Q528	8-729-194-57	TRANSISTOR	2SC945-P				R52	1-216-663-11	METAL	CHIP	J. JK	0.5%	1/1UW
		/ DEGLAMAD)					DEC	1 010 050 11	METAL	OUTD	01/	0. 50	4 /4 (41)
		< RESISTOR >	•				R55	1-216-658-11			2K		1/10W
					4 44 000		R101	1-259-476-11			100K		1/6W
R1	1-216-013-00		33	5%	1/10W		R102	1-247-702-11			150	5%	1/4W
R2	1-216-675-11		10K	0. 5%	1/10W		R103	1-247-722-11			5. 6K		1/4W
R3	1-216-681-11		18K		1/10W		R104	1-249-603-11	CARBU	N	130K	5%	1/4W
R4	1-218-774-11		820K				D405	4 050 400 44	a. ppo				
R5	1-216-668-11	METAL CHIP	5. 1K	U. 5%	1/10W		R105	1-259-468-11			47K	5%	1/6W
							R106	1-247-717-11			2. 2K		1/4W
R6	1-216-656-11		1. 6K		1/10W		R107	1-259-435-11			2K	5%	1/6W
R7	1-216-657-11		1. 8K				R108	1-249-429-11			10K	5%	1/4W
R8	1-216-065-00		4. 7K		1/10W		R109	1-259-436-11	CARBO	N	2. 2K	5%	1/6W
R9		METAL GLAZE	2. 4K		1/10W								
R10	1-216-654-11	METAL CHIP	1. 3K	0. 5%	1/10W		R110	1-259-468-11			47K	5%	1/6W
							R111	1-247-710-11			560	5%	1/4W
R11	1-216-013-00		33	5%	1/10W		R112	1-247-725-11			10K	5%	1/4₩
R12	1-216-017-00	METAL CHIP	47	5%	1/10W	1	R113	1-247-719-11	CARBO	N	3. 3K	5%	1/4W

Ref. No.	Part No.	Description			Remark	Ref. No.	Part No.	Description			Remark
R114	1-247-719-11	CARBON -	3. 3K	5%	1/4W	R163	1-259-449-11	CARBON	7. 5K	5%	1/6W
R115	1-259-500-11	CARBON	1M	5%	1/6W	R164	1-259-424-11		680	5%	1/6W
R116	1-259-422-11	CARBON	560	5%	1/6W	R165	1-259-451-11	CARBON	9. 1K		1/6W
R117	1-259-460-11	CARBON	22K	5%	1/6W	R166	1-259-476-11		100K		1/6W
R118	1-259-449-11	CARBON	7. 5K	5%	1/6W	R167	1-249-429-11		10K	5%	1/4W
R119	1-259-424-11		680	5%	1/6W	R168	1-247-193-00	CARBON	22K	1%	1/4W
R120	1-259-451-11	CARBON	9. 1K	5%	1/6W	R169	1-247-193-00	CARBON	22K	1%	1/4W
R121	1-249-429-11		10K	5%	1/4W	R170	1-247-719-11		3. 3K	5%	1/4W
R122	1-249-940-11		5. 1K		1/4W	R171	1-249-941-11	CARBON	5. 6K	1%	1/4W .
R123	1-247-721-11	CARBON	4. 7K	5%	1/4W	R172	1-259-476-11	CARBON	100K	5%	1/6W
R124	1-249-949-11		12K	1%	1/4W	R173	1-259-444-11		4. 7K	5%	1/6W
R125	1-247-715-11		1. 5K		1/4W	R174	1-259-450-11	CARBON	8. 2K	5%	1/6W
R126	1-247-715-11		1. 5K		1/4W	R175	1-247-725-11		10K	5%	1/4W
R127	1-249-913-11		390	1%	1/4W	R176	1-259-444-11		4. 7K	5%	1/6W
R128	1-259-468-11	CARBON	47K	5%	1/6W	R177	1-259-500-11	CARBON	1M ·	5%	1/6W
R129	1-247-716-11		1. 8K		1/4W	R178	1-259-460-11	CARBON	22K	5%	1/6W
R130	1-249-421-11		2. 2K		1/4W	R179	1-259-440-11	CARBON	3. 3K	5%	1/6W
R131	1-259-468-11		47K	5%	1/6W	R180	1-259-448-11		6. 8K	5%	1/6W
R132	1-259-452-11		10K	5%	1/6W	R181	1-249-421-11		2. 2K	5%	1/4W
R133	1-215-441-00	METAL	6. 8K	1%	1/6W	R182	1-259-461-11	CARBON	24K	5%	1/6W
R134	1-215-465-00		68K	1%	1/6W	R183	1-249-429-11		10K	5%	1/4W
R135	1-215-448-00		13K	1%	1/6W	R184	1-259-468-11		47K	5%	1/6W
R136	1-215-471-00		120K		1/6W	R185	1-259-436-11		2. 2K	5%	1/6W
R137	1-215-403-00		180	1%	1/6W	R186	1-259-476-11	CARBON	100K	5%	1/6W
R138	1-215-473-00	METAL	150K	1%	1/6W	R187	1-259-469-11	CARBON	51K	5%	1/6W
R139	1-259-468-11		47K	5%	1/6W	R188	1-249-782-11		150	5%	1/6W
R140	1-249-433-11		22K	5%	1/4W	R190	1-249-782-11	CARBON	150	5%	1/6W
R141	1-249-417-11		1K	5%	1/4W	R191	1-259-450-11	CARBON	8. 2K	5%	1/6W
R142	1-249-437-11		47K	5%	1/4W	R192	1-259-445-11		5. 1K	5%	1/6W
R143	1-249-427-11	CARBUN	6. 8K	5%	1/4W	R193	1-259-407-91	CARBON	130	5%	1/6W
R144	1-259-452-11	CARBON	10K	5%	1/6W	R194	1-259-444-11	CARBON	4. 7K	5%	1/6W
R145	1-259-440-11	CARBON	3. 3K	5%	1/6₩	R195	1-259-442-11	CARBON	3. 9K		1/6W
R146	1-259-460-11	CARBON	22K	5%	1/6W	R196	1-249-429-11	CARBON	10K	5%	1/4W
R147	1-247-704-11	CARBON	220	5%	1/4W	R197	1-249-429-11		10K	5%	1/4W
R148	1-247-713-11	CARBON	1K	5%	1/4W	R198	1-249-429-11	CARBON	10K	5%	1/4W
R149	1-249-461-11	CARBON	18K	5%	1/4W	R199	1-247-721-11	CARBON	4. 7K	5%	1/4W
R150	1-259-476-11		100K	5%	1/6W	R201	1-259-476-11	CARBON	100K		1/6W
R151	1-259-448-11		6. 8K	5%	1/6W	R202	1-247-702-11	CARBON	150	5%	1/4W
R152	1-259-442-11		3. 9K	5%	1/6W	R203	1-247-722-11		5. 6K	5%	1/4W
R153	1-259-449-11	CARBON	7. 5K	5%	1/6W	R204	1-249-603-11	CARBON	130K	5%	1/4W
R154	1-259-468-11	CARBON	47K	5%	1/6W	R205	1-259-468-11	CARBON	47K	5%	1/6W
R155	1-259-468-11		47K	5%	1/6W	R206	1-247-717-11 (CARBON	2. 2K		1/4W
R156	1-247-128-00		750	5%	1/4W	R207	1-259-435-11 (CARBON	2K	5%	1/6W
R157	1-247-725-11		10K	5%	1/4W	R208	1-249-429-11 (CARBON	10K	5%	1/4W
R158	1-247-719-11	CARBON	3. 3K	5%	1/4W	R209	1-259-436-11 (CARBON	2. 2K		1/6W
R159	1-247-719-11	CARBON	3. 3K	5%	1/4W	R210	1-259-468-11 (CARBON	47K	5%	1/6W
R160	1-259-500-11		1M	5%	1/6W	R211	1-247-710-11			5%	1/4W
R161	1-259-422-11		560	5%	1/6W		1-247-725-11 (5%	1/4W
R162	1-259-460-11	CARBON	22K	5%	1/6W		1-247-719-11 (3. 3K		1/4W

Ref. No.	Part No.	Description			Remark	Ref. No.	Part No.	Description			Remark
R214	1-247-719-11	CARBON	3. 3K	5%	1/4W	R263	1-259-449-11	CARBON	7. 5K	5%	1/6W
R215	1-259-500-11	CARBON	1M	5%	1/6W	R264	1-259-424-11	CARBON	680	5%	1/6W
R216	1-259-422-11	CARBON	560	5%	1/6W	R265	1-259-451-11	CARBON	9. 1K	5%	1/6W
R217	1-259-460-11		22K	5%	1/6W	R266	1-259-476-11		100K		1/6W
R218	1-259-449-11		7. 5K		1/6W	R267	1-249-429-11		10K	5%	1/4W
11220	1 200 110 11	O'MIDON			2, 5.,		1 210 120 11	O'IIIDON	1011	0.0	1/ 1"
R219	1-259-424-11	CARRON	680	5%	1/6W	R268	1-247-193-00	CARRON	22K	1%	1/4W
R220	1-259-451-11		9. 1K		1/6W	R269	1-247-193-00		22K	1%	1/4W
R221	1-249-429-11		10K	5%	1/4W	R270	1-247-719-11		3. 3K		
											1/4W
R222	1-249-940-11		5. 1K		1/4W	R271	1-249-941-11		5. 6K		1/4W
R223	1-247-721-11	CARDON	4. 7K	3%	1/4W	R272	1-259-476-11	CARDON	100K	D76	1/6W
0004	1 040 040 11	CARRON	100	10	1 /410	Daza	1 250 444 11	CARRON	4 717	Γéν	4 /CW
R224	1-249-949-11		12K	1%	1/4W	R273	1-259-444-11		4. 7K		1/6W
R225	1-247-715-11		1. 5K		1/4W	R274	1-259-450-11		8. 2K		1/6W
R226	1-247-715-11		1. 5K		1/4W	R275	1-247-725-11		10K	5%	1/4W
R227	1-249-913-11		390	1%	1/4W	R276	1-259-444-11		4. 7K		1/6₩
R228	1-259-468-11	CARBON	47K	5%	1/6W	R277	1-259-500-11	CARBON	1M	5%	1/6W
R229	1-247-716-11	CARBON	1. 8K	5%	1/4W	R278	1-259-460-11	CARBON	22K	5%	1/6W
R230	1-249-421-11	CARBON	2. 2K	5%	1/4W	R279	1-259-440-11	CARBON	3. 3K		1/6W
R231	1-259-468-11		47K	5%	1/6W	R280	1-259-448-11	CARBON	6. 8K	5%	1/6W
R232	1-259-452-11	CARBON	10K	5%	1/6W	R281	1-249-421-11	CARBON	2. 2K	5%	1/4W
R233	1-215-441-00	METAL	6. 8K	1%	1/6W	R282	1-259-461-11	CARBON	24K	5%	1/6W
R234	1-215-465-00	METAL	68K	1%	1/6W	R283	1-249-429-11	CARBON	10K	5%	1/4W
R235	1-215-448-00	METAL	13K	1%	1/6W	R284	1-259-468-11	CARBON	47K	5%	1/6W
R236	1-215-471-00	METAL	120K	1%	1/6W	R285	1-259-436-11	CARBON	2. 2K	5%	1/6W
R237	1-215-403-00	METAL	180	1%	1/6W	R286	1-259-476-11	CARBON	100K	5%	1/6W
R238	1-215-473-00	METAL	150K	1%	1/6W	R287	1-259-469-11	CARBON	51K	5%	1/6W
											,
R239	1-259-468-11	CARBON	47K	5%	1/6W	R288	1-249-782-11	CARBON	150	5%	1/6W
R240	1-249-433-11		22K	5%	1/4W	R290	1-249-782-11		150	5%	1/6W
R241	1-249-417-11		1K	5%	1/4W	R291	1-259-450-11		8. 2K		1/6W
R242	1-249-437-11		47K	5%	1/4W	R292	1-259-445-11		5. 1K		1/6W
R243	1-249-427-11		6. 8K		1/4W	R293	1-259-407-91		130	5%	1/6W
					-,						-,
R244	1-259-452-11	CARBON	10K	5%	1/6W	R294	1-259-444-11	CARBON	4. 7K	5%	1/6W
R245	1-259-440-11		3. 3K		1/6W	R295	1-259-442-11		3. 9K		1/6W
R246	1-259-460-11		22K	5%	1/6W	R296	1-249-429-11		10K	5%	1/4W
R247	1-247-704-11		220	5%	1/4W	R297	1-249-429-11		10K	5%	1/4W
R248	1-247-713-11		1K	5%	1/4W	R298	1-249-429-11		10K	5%	1/4W
11240	1 247 713 11	CAMBON	11/	3/0	1/ 3#	11230	1 243 423 11	Childon	ION	J.60	1/4#
D240	1_240_461_11	CADRON	191/	54	1/4W	R299	1-247-721-11	CADRON	4 7V	50	1 //₩
R249	1-249-461-11		18K	5%		1			4. 7K		1/4W
R250	1-259-476-11		100K	5% 5~	1/6W	R301	1-249-435-11		33K	5%	1/4W
R251	1-259-448-11		6. 8K		1/6W	R302	1-249-426-11		5. 6K		1/4W
R252	1-259-442-11		3. 9K		1/6W	R303	1-247-883-00		150K		1/4W
R253	1-259-449-11	CARBON	7. 5K	5%	1/6W	<u></u> ∧ R304	1-212-857-00	FUSTBLE	10	5%	1/4W F
200		G + PPON	4817		4 /0111	2002	4 050 440 44	a.pnov		-4.	
R254	1-259-468-11		47K	5%	1/6W	R307	1-259-440-11		3. 3K		1/6W
R255	1-259-468-11		47K	5%	1/6W	R308	1-259-468-11		47K	5%	1/6W
R256	1-247-128-00		750	5%	1/4W	R309	1-249-962-11		43K	1%	1/4W
R257	1-247-725-11		10K	5%	1/4W	R310	1-259-468-11		47K	5%	1/6W
R258	1-247-719-11	CARBON	3. 3K	5%	1/4W	R401	1-249-435-11	CARBOŃ	33K	5%	1/4W
R259	1-247-719-11	CARBON	3. 3K		1/4W	R402	1-249-426-11	CARBON	5. 6K		1/4W
R260	1-259-500-11	CARBON	1M	5%	1/6W	R403	1-247-883-00	CARBON	150K	5%	1/4W
R261	1-259-422-11	CARBON	560	5%	1/6W	<u>^</u> R404	1-212-857-00		10	5%	1/4W F
R262	1-259-460-11	CARBON	22K	5%	1/6W	R407	1-259-440-11	CARBON	3. 3K	5%	1/6₩

The components identified by mark A or dotted line with mark. A are critical for safety.
Replace only with part number specified.

Ref. No.	Part No.	Description			Remark	Ref. No.	Part No.	Description			Res	mark
R408	1-259-468-11	CARBON	47K	5%	1/6W	R553	1-249-441-11	CARRON	100K	5%	1/4W	
R409	1-249-962-11		43K	1%	1/4W	R554	1-249-413-11		470	5%	1/4W	
R410	1-259-468-11		47K	5%	1/6W	R555	1-249-417-11		1K	5%	1/4W	
R501	1-247-704-11		220	5%	1/4W	R556	1-249-421-11		2. 2K		1/4W	
R502	1-247-704-11		220	5%	1/4W	R557	1-249-417-11			5%	•	
NOOL	1 217 701 11	VIIIDON	220	0.00	1/ 4"	11337	1 243 417-11	CARDON	1K	3%	1/4W	
R503	1-247-717-11	CARRON	2. 2K	5%	1/4W	R558	1-249-421-11	CADDON	9 917	E@	1 /455	
R504	1-247-717-11		2. 2K		1/4W	R560			2. 2K		1/4W	
R505	1-247-717-11		2. 2K		1/4W	1	1-249-433-11		22K	5% 5%	1/4W	
R507	1-247-706-11		330	5%		R561	1-249-427-11		6. 8K		1/4W	
R508	1-249-926-11		1. 3K		1/4W 1/4W	R562	1-249-440-11		82K	5%	1/4W	
11300	1-245-520-11	CARDON	1. JN	3.6	1/4#	R563	1-249-440-11	CARBUN	82K	5%	1/4W	
R509	1-249-556-11	CADRON	1. 5K	59	1/4W	A DEC4	1 919 053 00	PUGIDI P		5 0,	4 4477	_
R510					=	<u>1</u> R564	1-212-853-00		6.8	5%	1/4W	
R511	1-249-556-11		1. 5K		1/4W	<u>1</u> 1. R565	1-212-853-00		6.8	5%	1/4W	f
	1-249-433-11		22K	5% 5%	1/4W	R566	1-249-381-11		1	5%	1/4W	
R512	1-249-437-11		47K	5%	1/4W	R567	1-249-437-11		47K	5%	1/4W	
R513	1-249-433-11	CARBON	22K	5%	1/4W	R568	1-215-472-00	METAL	130K	1%	1/6W	
DE4.4												
R514	1-249-429-11		10K	5%	1/4W	R569	1-249-429-11	CARBON	10K	5%	1/4W	
R515	1-215-472-00		130K		1/6W	R570	1-249-429-11	CARBON	10K	5%	1/4W	
R516	1-249-429-11		10K	5%	1/4W							
R517	1-249-437-11		47K	5%	1/4W			< VARIABLE RESIS	TOR >			
R518	1-249-417-11	CARBON	1K	5%	1/4W							
						RV101	1-237-192-11	RES, ADJ, CARBON	5K			
R519	1-247-885-00	CARBON	180K	5%	1/4W	RV102	1-241-631-11	RES, ADJ, CARBON	22K			
R520	1-249-433-11	CARBON	22K	5%	1/4W	RV103	1-237-192-11	RES, ADJ, CARBON	5K			
R521	1-249-413-11	CARBON	470	5%	1/4W	RV104	1-241-631-11	RES, ADJ, CARBON	22K			
R522	1-249-413-11	CARBON	470	5%	1/4W			RES, ADJ, CARBON				
R523	1-249-432-11	CARBON	18K	5%	1/4W	İ						
						RV202	1-241-631-11	RES, ADJ, CARBON	22K			
R524	1-249-433-11	CARBON	22K	5%	1/4W	ľ		RES, ADJ, CARBON				
R527	1-249-433-11	CARBON	22K	5%	1/4W			RES, ADJ, CARBON				
R528	1-249-421-11	CARBON	2. 2K	5%	1/4W			RES, VAR, CARBON		SOK (RALANCE)	
R530	1-249-429-11	CARBON	10K	5%	1/4W			RES, VAR, CARBON				3
R531	1-249-433-11	CARBON	22K	5%	1/4W			, .,				-,
						RV503	1-238-840-21	RES, VAR, CARBON	5K/5H	(CA	L REC LEV	ÆL)
R532	1-249-437-11	CARBON	47K	5%	1/4W	RV504	1-241-336-11	RES, VAR, CARBON	20K/2	OK (PHONE LEV	/FL)
R533	1-247-856-00	CARBON	11K	5%	1/4W	RV505	1-241-631-11	RES, ADJ, CARBON	22K	, o.i.	HONE DE	<i>DD</i> ,
R534	1-249-397-11		22	5%	1/4W			RES, ADJ, CARBON				
R535	1-249-406-11		120	5%	1/4W			RES, ADJ, CARBON				
R536	1-247-856-00		11K	5%	1/4W		1 200 000 11	neo, ano, ombon	LLU			
					-,	RV508	1-238-009-11	RES, ADJ. CARBON	220			
R537	1-249-437-11	CARBON	47K	5%	1/4W	1 11300	1 230 003 11	RES, ADS, CARDON	220			
R538	1-249-432-11		18K	5%	1/4W			< SWITCH >				
R539	1-249-397-11		22	5%	1/4W	-		/ D#11011 /				
R540	1-249-406-11		120	5%	1/4W	9501	1 600 075 11	OWITOU DUOU /4 1	mu /	n i ne	ım\	
R541	1-249-432-11		18K	5%	1/4W	S501		SWITCH, PUSH (1 I				
11341	1 245 452 11	CARDON	1011	JA	1/4#	S502	1-5/2-589-11	SWITCH, ROTARY (1	REC EQ	(CAL)		
R542	1-247-887-00	CADRON	220K	E#	1 /AW			/ EDANGEODIED >				
R543			220K		1/4W			< TRANSFORMER >				
R544	1-247-887-00		220K	_	1/4W	T-04	1 400 004 40	MD A MODONADO				
	1-249-407-11		150	5% 5~	1/4W	T101		TRANSFORMER, BIAS				
R547	1-249-437-11		47K	5% For	1/4W	T201		TRANSFORMER, BIAS				
R548	1-249-429-11	LAKBUN	10K	5%	1/4W	T501	1-433-359-11	TRANSFORMER, BIAS	OSCI	LLATI	ON	
R549	1-249-437-11	CARRON	47K	5%	1/4W							
R550	1-249-437-11		47K	5%	1/4W							
R551	1-249-437-11		47K	5%	1/4W							
R552	1-249-421-11		2. 2K		1/4W							
11332	1 174 11	บกเบบแ	L. LR	JÆ	1/ 1717	I						

The components identified by mark ⚠ or dotted line with mark. ⚠ are critical for safety.
Replace only with part number specified.

AUDIO DOLBY S CAPSTAN COMPARATOR MD

Ref. No.	Part No.	Description			Ren	nark	Ref. No.	Part No.	Description			Ren	ark
		< TEST PIN >					C952	1-124-282-00	ELECT	22uF		20%	25V
							C953	1-124-478-11	ELECT	100uF		20%	25V
* TP501	1-564-506-11	PLUG, CONNECTOR	3P				C954	1-124-477-11	ELECT	47uF		20%	25V
		PLUG, CONNECTOR					C955	1-162-203-31	CERAMIC	15PF		5%	50V
		PLUG, CONNECTOR					C956	1-162-203-31	CERAMIC	15PF		5%	50V
		********		*****	******	****	0057	1 100 150 00	FILM	0.000	r	F@	FOU
	A-2006-154-A	CAPSTAN BOARD,	COMPLET	ΓE			C957	1-136-159-00	rilm	0. 033u	r	5%	50V
	A 2000 104 A	********							< CONNECTOR >				
		< CAPACITOR >					* CN951	1-564-718-11	PIN, CONNECTOR	(SMALL	TYPE)	2P	
									PLUG, CONNECTOR				
C905	1-124-779-00		10uF		20%	16V							
C906	1-135-091-00	TANTALUM CHIP	1uF		20%	16V			< IC >				
C907	1-163-077-00	CERAMIC CHIP	0. 1uF		10%	25V							
C908		CERAMIC CHIP	0. 1uF		10%	25V			IC uPC4558C				
C909	1-163-077-00	CERAMIC CHIP	0. 1uF		10%	25V	IC952	8-759-201-58	IC TC9142P				
C910	1-163-205-00	CERAMIC CHIP	0. 001ı	ıF	5%	50V			< RESISTOR >				
C911	1-124-779-00	ELECT CHIP	10uF		20%	16V							
							R951	1-249-413-11	CARBON	470	5%	1/4W	
		< HOLE ELEMENT	>				R952	1-249-413-11	CARBON	470	5%	1/4W	
							R953	1-247-881-00	CARBON	120K	5%	1/4W	
H901	8-759-100-96	HOLE ELEMENT	uPC45580	G2			R954	1-247-881-00	CARBON	120K	5%	1/4W	
H902	8-759-100-96	HOLE ELEMENT	uPC45580	G2			R955	1-249-429-11	CARBON	10K	5%	1/4W	
H903	8-759-100-96	HOLE ELEMENT	uPC45580	G2									
							R956	1-249-417-11	CARBON	1K	5%	1/4W	
		< IC >					R957	1-249-417-11	CARBON	1K	5%	1/4W	
							R958	1-247-891-00	CARBON	330K	5%	1/4W	
IC902	8-752-017-40	IC CX20174					R959	1-247-901-11	CARBON	820K	5%	1/4W	
							R960	1-249-441-11	CARBON	100K	5%	1/4W	
		< JUMPER RESIST	ror >						< VIBRATOR >				
JR902	1-216-296-00	METAL CHIP	0	5%	1/8W								
JR903	1-216-296-00	METAL CHIP	0	5%	1/8W		X951	1-577-615-11	VIBRATOR, CRYST	AL (4.9	406MH:	z)	
JR904	1-216-296-00	METAL CHIP	0	5%	1/8W		******	********	*******	******	****	******	****
JR905	1-216-296-00	METAL CHIP	0	5%	1/8W								
		< RESISTOR >					*	1-632-740-11	MD BOARD				
		\ RESISTOR >											
R907	1-216-242-00	METAL GLAZE	68K	5%	1/8W			3-356-631-01	HOLDER (SENSOR)				
R908	1-216-246-00	METAL GLAZE	100K	5%	1/8W								
R909	1-216-246-00	METAL GLAZE	100K	5%	1/8W				< CONNECTOR >				
R910	1-216-238-00	METAL GLAZE	47K	5%	1/8W								
R911	1-216-182-00	METAL GLAZE	220	5%	1/8W		l .		PIN, CONNECTOR PIN, CONNECTOR				
R912	1-216-182-00	METAL GLAZE	220	5%	1/8W		3,11002	_ 551 551 11	, John Doroll	-•			
R913		METAL GLAZE	10	5%	1/8W				< PHOTO INTERRU	PTER >			
R914		METAL GLAZE	10	5%	1/8W					/			
R915		METAL GLAZE	10	5%	1/8W		101001	8-749-920-97	PHOTO INTERRUPT	FR GP2	S22R		
	1-210-130-00		*****	****	******	****			PHOTO INTERRUPT				
*	1-632-746-11	COMPARATOR BOA	RD						< RESISTOR >				
	1 000 140 11	*********											
		< CAPACITOR >						1-249-408-11 1-249-408-11			5% 5%	1/4₩ 1/4₩	
				_									
C951	1-136-157-00	FILM	0. 022	uF	5%	50V							

MD REEL MOTOR SYSTEM CONTROL

Ref. No.	Part No.	Description		Re	mark	Ref. No.	Part No.	Description		Re	emark
		< SWITCH >						< CAPACITOR >			
		SWITCH, PUSH				C001	1-161-744-00	CERAMIC	0. 01uF		400V
S1003	1-571-958-11	SWITCH, PUSH	(1 KEY) (CLOS	SE)		C601	1-124-443-00	ELECT	100uF	20%	10V
S1004	1-572-126-11	SWITCH, PUSH	(1 KEY) (OPEN	i)		C602	1-164-159-11		0. 1uF	4.070	50V
S1005	1-572-125-11	SWITCH, LEAF	(FWD TAB)			C603	1-162-294-31		0. 001uF	10%	50V
S1006	1-572-202-11	SWITCH, LEAF	(HALF)			C604			0. 001uF	10%	50V
S1007	1-572-125-11	SWITCH, LEAF	(METAL)			C701	1-136-177-00	FILM	1uF		COV
		SWITCH, LEAF				C702			O. 1uF	5% 5%	50V
			(,			C703			3300uF	5%	50V
		< TERMINAL >				C704				20%	25V
		, ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,				I	1-124-927-11		3300uF	20%	25V
* TB1001	1-694-018-11	TERMINAL (5P)				0103	1-124-327-11	ELECI	4. 7uF	20%	100V
		*********		*****	****	C706	1 196 105 11	CI COR	4000 5		
						l l	1-126-105-11		1000uF	20%	35V
	1-632-741-11	REEL MOTOR BO	ADh			C707			3300uF	20%	16V
	1 002 /41 11	**********				C708		-	1uF	20%	50V
		******	***			C709			1000uF	20%	6. 3V
		< CAPACITOR >				C710	1-124-927-11	ELECT	4. 7uF	20%	100V
		CAPACITOR >									
C10E1	1-124-907-11	EI POT	40P	000	FOU		1-124-927-11		4. 7uF	20%	100V
			10uF	20%	50V		1-162-211-31		33PF	5%	50V
	1-124-907-11		10uF	20%	50V		1-124-473-11		1000uF	20%	10V
01033	1-164-159-11	CERAMIC	0. 1uF		50V		1-126-955-11		4700uF	20%	35V
		< CONNECTOR >				C715	1-124-927-11	ELECT	4. 7uF	20%	100V
						C716	1-124-556-11	FLECT	2200uF	one	100
* CN1051	1-564-499-11	PIN, CONNECTOR	R 6P			C717	1-124-122-11			20%	16V
		PIN, CONNECTO) 2P			1-124-122-11		100uF	20%	50V
		PIN, CONNECTO					1-164-159-11		47uF	20%	25V
02000	1 001 110 11	111, 0011120101	it (OMELLE III E)	, <u>2</u> 1		C801	1-104-139-11		0. 1uF	0.00	50V
		< MOTOR >				0001	1-124-307-11	CLEUI	10uF	20%	50V
						C802	1-124-927-11	ELECT	4. 7uF	20%	100V
M1001	X-3356-638-1	MOTOR (REEL R)	ASSY				1-124-443-00		100uF	20%	10V
M1002	X-3356-604-1	MOTOR (ASSIST)	ASSY			C804	1-124-472-11	ELECT	470uF	20%	10V
						C805	1-164-159-11	CERAMIC	0. 1uF		50V
		< RESISTOR >				C806	1-164-159-11		0. 1uF		50V
R1051	1-249-412-11	CARBON	390 5%	1/4W		C807	1-124-477-11	FLFCT	47uF	20%	25V
******	******	*********	******	******	****		1-124-234-00		22uF	20%	25V 16V
						C852	1-124-907-11		10uF	20%	
+	A-2007-027-A	SYSTEM CONTROL	. BOARD, COMPI	ETE.		C853	1-124-925-11				50V
		*******				C854	1-124-927-11		2. 2uF	20%	100V
						0004	1 124 527 11	CCCCI	4. 7uF	20%	100V
*	1-533-213-11	HOLDER, FUSE					,	< CONNECTOR >			
	1-533-213-31							· Johnsolvii /			
	3-309-144-31					+ CN001	1-580-230-31	PIN, CONNECTOR	(PC ROARD)	2D	
	9-911-844-XX	CUSHION				CN002	1-568-226-11	PIN, CONNECTOR A	(TO DOWND)	LF	
	3-356-925-01							PLUG, CONNECTOR			
	-							PLUG, CONNECTOR			
*	3-362-478-11	HOLDER (T), LE	:D			* CN801	1-56/-220-61	PIN, CONNECTOR	or :n		
		HOLDER, FL TUB				· OHOUI	I 104 302-01	IN, COMMECTUR S	or		
	4-880-403-21					+ CNOO2	1_506_500 14 4	IN CONVERSES	ın.		
	4-942-204-01					- CHOUZ	1_000-000-11	PIN, CONNECTOR S	jr ID		
	7-685-871-01		3X6 (S)			+ UNOU3	1-304-341-51 }	PIN, CONNECTOR 7	יץ		

SYSTEM CONTROL

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description		Remark
		< CONPOSITION CIRCUIT BLOCK >				< IC >		
CP601	1-232-881-11	COMPOSITION CIRCUIT BLOCK 100k	X 6	IC601	8-759-635-68	IC M50940-	313SP	
CP602	1-236-985-11	COMPOSITION CIRCUIT BLOCK 100k	X 9	IC801	8-759-635-69	IC M50964-	226SP	
CP801	1-236-984-11	COMPOSITION CIRCUIT BLOCK 4.7k	X 11	IC802	8-759-973-95	IC BA6219B		
				IC803	8-759-822-09	IC LB1641		
		< DIODE >		IC851	8-741-100-48	IC SBX1610	-59	
D601	8-719-301-44					< TRANSISTOR	>	
D602	8-719-301-61			0004	0.700.000.01	mp a war aman	DM1444100	
D603	8-719-301-39			Q601	8-729-900-61		DTA114ES	
D604	8-719-987-63			Q602	8-729-900-61		DTA114ES	
D605	8-719-987-63	DIODE 1N4148M		Q603	8-729-900-61		DTA114ES	
2000	0.740.007.00	NIONE ANALAOM		Q604	8-729-900-61		DTA114ES	
D606	8-719-987-63			Q605	8-729-900-61	TRANSTSTUR	DTA114ES	
D607	8-719-987-63			0000	0 700 000 04	TDANGICTOD	DT4444FC	
D701	8-719-230-02			Q606	8-729-900-61		DTA114ES	
D702	8-719-230-02			Q607	8-729-900-65		DTA144ES	
D703	8-719-230-02	DIODE 30DF2		Q608	8-729-900-65		DTA144ES	
D704	0 710 920 09	NIONE 20NE2		Q609	8-729-900-65		DTA144ES	
D704	8-719-230-02			Q610	8-729-900-65	INANSISIUN	DTA144ES	
D705	8-719-200-77			0611	8-729-900-65	TDANCICTOD	DTA144ES	
D706 D707	8-719-200-77			Q611 Q612	8-729-900-65			
D707	8-719-200-77 8-719-200-77			Q613	8-729-900-89		DTA144ES DTC144ES	
V/00	0-719-200-77	DIODE TOEZN		Q614	8-729-900-65		DTA144ES	
D709	8-719-200-77	DIODE 10E2N		Q701	8-729-231-60		2SD1406-YGR	
D703	8-719-987-63			Q 101	0 723 231 00	HANDISTOR	2301400 TOR	
D710	8-719-933-41			Q702	8-729-209-15	TRANSISTOR	2SD2012	
D711	8-719-933-41			Q702	8-729-209-15		2SD2012	
D713	8-719-200-77			Q704	8-729-620-05		2SC2603-EF	
D710	0 713 200 77	PIODE TOLEM		Q705	8-729-620-05		2SC2603-EF	
D714	8-719-001-79	DIODE UZL-12H1		Q706	8-729-620-05		2SC2603-EF	
D715	8-719-200-77			•				
D716	8-719-200-77			Q707	8-729-620-05	TRANSISTOR	2SC2603-EF	
D717	8-719-933-41			Q708	8-729-140-04		2SB1116A-L	
D801	8-719-200-77			Q709	8-729-141-32	TRANSISTOR	2SA1409-LK	
				Q801	8-729-620-05		2SC2603-EF	
D802	8-719-987-63	DIODE 1N4148M		Q802	8-729-620-05	TRANSISTOR	2SC2603-EF	
D803	8-719-987-63	DIODE 1N4148M						
D804	8-719-987-63	DIODE 1N4148M		Q803	8-729-900-61	TRANSISTOR	DTA114ES	
D851	8-719-987-63	DIODE 1N4148M		Q804	8-729-119-76	TRANSISTOR	2SA1175-HFE	
D852	8-719-987-63	DIODE 1N4148M		Q805	8-729-119-76	TRANSISTOR	2SA1175-HFE	
				Q806	8-729-900-65	TRANSISTOR	DTA144ES	
D853	8-719-987-63	DIODE 1N4148M		Q807	8-729-900-65	TRANSISTOR	DTA144ES	
D855	8-719-987-63	DIODE 1N4148M						
D856	8-719-987-63	DIODE 1N4148M		Q808	8-729-900-65	TRANSISTOR	DTA144ES	
D857	8-719-987-63	DIODE 1N4148M		Q809	8-729-900-65	TRANSISTOR	DTA144ES	
D858	8-719-987-63	DIODE 1N4148M		Q810	8-729-900-65	TRANSISTOR	DTA144ES	
				Q811	8-729-119-76		2SA1175-HFE	
		< FUSE >		Q812	8-729-900-65	TRANSISTOR	DTA144ES	
∱ F701	1-532-285-00	FUSE, TIME-LAG (T1.25AL/250V)		Q813	8-729-900-65	TRANSISTOR	DTA144ES	
		,		Q814	8-729-119-76		2SA1175-HFE	
		< FLUORESCENT INDICATOR TUBE >		Q815	8-729-900-89		DTC144ES	
				Q851	8-729-900-80		DTC114ES	
FLT601	1-517-139-11	INDICATOR TUBE, FLUORESCENT		Q852	8-729-900-65		DTA144ES	

The components identified by mark A or dotted line with mark. A are critical for safety.
Replace only with part number specified.

SYSTEM CONTROL

Ref. No.	Part No.	Description			Remark	Ref. No.	Part No.	Description			Remar
Q854	8-729-900-80	TRANSISTOR	DTC114ES	}		R807	1-247-903-00	CARBON	1M	5%	1/4W
						R808	1-249-429-11	CARBON	10K	5%	1/4W
		< RESISTOR >				R810	1-249-437-11	CARBON	47K	5%	1/4W
						R811	1-249-437-11	CARBON	47K	5%	1/4W
R601	1-249-429-11	CARBON	10K	5%	1/4W	R812	1-249-421-11	CARBON	2. 2K	5%	1/4W
R602	1-249-429-11	CARBON	10K	5%	1/4W						-,
R603	1-249-437-11	CARBON	47K	5%	1/4W	R813	1-249-421-11	CARBON	2. 2K	5%	1/4W
R604	1-247-903-00	CARBON	1M	5%	1/4W	R814	1-249-429-11		10K	5%	1/4W
R605	1-249-421-11		2. 2K	-	1/4W	R815	1-249-429-11		10K	5%	1/4W
					-, -	R816	1-249-429-11		10K	5%	1/4W
R606	1-249-421-11	CARBON	2. 2K	5%	1/4W	R817	1-249-429-11		10K	5%	1/4W
R607	1-249-421-11		2. 2K		1/4W	11017	1 243 423 11	CARDON	101	JA	1/4#
R608	1-249-421-11		2. 2K		1/4W	R818	1_940_490_11	CADBON	1017	Γœ	4 /410
R609	1-249-429-11		10K	5%	1/4W	I .	1-249-429-11		10K	5%	1/4W
R610	1-249-425-11					R819	1-249-429-11		10K	5%	1/4W
MOTO	1-249-420-11	CARDON	4. 7K	3%	1/4W	R820	1-249-436-11		39K	5%	1/4W
DC11	1 040 400 11	CARRON	0.57	Fee	4 /400	R821	1-249-436-11		39K	5%	1/4W
R611	1-249-422-11		2. 7K		1/4W	R822	1-249-437-11	CARBON	47K	5%	1/4W
R612	1-249-424-11		3. 9K		1/4W		4 4 5				
R613	1-249-428-11		8. 2K		1/4W	R823	1-249-433-11		22K	5%	1/4W
R614	1-249-434-11		27K	5%	1/4W	R824	1-249-426-11		5. 6K		1/4W
R615	1-249-422-11	CARBON	2. 7K	5%	1/4W	R825	1-249-413-11	CARBON	470	5%	1/4W
						R826	1-249-429-11	CARBON	10K	5%	1/4W
R616	1-249-424-11	CARBON	3. 9K	5%	1/4W	R827	1-249-429-11	CARBON	10K	5%	1/4W
R617	1-249-428-11		8. 2K	5%	1/4W						
R618	1-249-434-11	CARBON	27K	5%	1/4W	R828	1-249-425-11	CARBON	4. 7K	5%	1/4W
R619	1-249-431-11	CARBON	15K	5%	1/4W	R829	1-249-425-11	CARBON	4. 7K	5%	1/4W
R620	1-249-434-11	CARBON	27K	5%	1/4W	_ R830	1-212-954-11	FUSIBLE	6.8	5%	1/2W F
						R831	1-249-427-11	CARBON	6. 8K	5%	1/4W
R621	1-249-409-11	CARBON	220	5%	1/4W	R832	1-249-428-11	CARBON	8. 2K	5%	1/4W
R622	1-249-410-11	CARBON	270	5%	1/4W						_,
R623	1-249-412-11	CARBON	390	5%	1/4W	R833	1-249-428-11	CARBON	8. 2K	5%	1/4W
<u></u> 1 1 1	1-212-863-00	FUSIBLE	18	5%	1/4W F	R834	1-249-425-11		4. 7K		1/4 W
R702	1-247-752-11	CARBON	1K	5%	1/2W	R835	1-249-425-11		4. 7K		1/4W
					,	∕r\R836	1-212-954-11		6. 8	5%	1/2W F
R703	1-249-423-11	CARBON	3. 3K	5%	1/4W	R837	1-249-429-11		10K	5%	1/4 W
R704	1-249-421-11		2. 2K		1/4W		1 010 120 11	Childon	1011	3.49	1/14
R705	1-249-437-11		47K	5%	1/4W	R851	1-249-431-11	CADRON	157	E@	1 //87
R706	1-249-425-11		4. 7K		1/4W	R852	1-249-437-11		15K	5%	1/4W
R707	1-249-421-11		2. 2K		1/4W	R853			47K	5%	1/4W
14707	1 243 421 11	OMIDON	L. LI	3.40	1/3"	R854	1-249-437-11		47K	5% 50/	1/4W
R708	1-249-421-11	CADRON	2. 2K	E&	1/4W	1	1-249-429-11		10K	5%	1/4W
R709	1-249-421-11					R855	1-249-429-11	CARBUN	10K	5%	1/4W
			2. 2K		1/4W	Boro	4 040 400 44	a.nna			
R710	1-249-427-11		6. 8K		1/4W	R856	1-249-437-11		47K	5%	1/4W
R711	1-249-425-11		4. 7K		1/4W	R857	1-249-429-11		10K	5%	1/4W
R712	1-249-421-11	CARBON	2. 2K	5%	1/4W	R859	1-249-437-11		47K	5%	1/4₩
						R860	1-249-429-11	CARBON	10K	5%	1/4W
R713	1-249-431-11		15K	5%	1/4W						
R714	1-249-429-11		10K	5%	1/4W			< VARIABLE RESI	STOR >		
R715	1-249-425-11			5%	1/4W						
R716	1-249-437-11		47K	5%	1/4W	RV801	1-241-629-11	RES, ADJ, CARBO	N 4.7K		
R801	1-249-425-11	CARBON	4. 7K	5%	1/4W	RV851	1-223-266-11	RES, VAR, CARBO	N 10K	(CAL	BIAS)
R802	1-249-417-11	CARBON	1K	5%	1/4W			< SWITCH >			
R803	1-249-435-11		33K	5%	1/4W			\ D#110∏ /			
R804	1-249-437-11		47K	5%	1/4W	S001	1-579-967-51	CWITCH DUCH /A.	ר מאשרי	D\ /4 ·	ለ ርሊ/ (ኢህሊ ሲኒክ)
R805	1-249-440-11		82K	5%	1/4W	S601		SWITCH, PUSH (A			
R806	1-249-413-11		470	5%	1/4W			SWITCH, TACTILE			
1000	1 210 110 11	VI HIDON	7/0	J/B	7/34	S602		SWITCH, TACTILE			
						S603	1-554-303-21	SWITCH, TACTILE	(OPEN,	/CLOSI	£ ⇔)

The components identified by mark ⚠ or dotted line with mark. ⚠ are critical for safety.
Replace only with part number specified.

SYSTEM CONTROL

Ref. No.	Part No.	Description		Remark	Ref. No.	Part No.	Des
S604	1-554-303-21	SWITCH, TACTILE	(■)			ACCESSORI	ES & 1
S605	1-554-303-21	SWITCH, TACTILE	(◀)			*******	****
S606	1-554-303-21	SWITCH, TACTILE	(▶)				
		SWITCH, TACTILE		ŀ		1-558-271-1	1 COR
S608		SWITCH, TACTILE			*	3-354-919-8	1 IND
				İ	*	3-366-547-0	1 CUS
S609	1-554-303-21	SWITCH, TACTILE	(PAUSE ■■)			3-704-366-0	1 SCRI
S610	1-554-303-21	SWITCH, TACTILE	(AMS 144)			3-756-186-1	1 MAN
		SWITCH, TACTILE					(EN
S612	1-554-303-21	SWITCH, TACTILE	(REC MUTE O)				
S613	1-571-520-11	SWITCH, SLIDE ((IMER)			3-756-186-4	1 MANI (GEI
S851	1-554-303-21	SWITCH, TACTILE	(MONITOR)			3-756-186-5	1 MAN
S852	1-692-368-11	SWITCH, ROTARY	(DOLBY NR)				
S853	1-692-376-11	SWITCH, PUSH (1	KEY) (CALIBRATI	ON)	******	******	****
S854	1-692-376-11	SWITCH, PUSH (1	KEY) (MPX FILTE	R)		***	*****
		< TRANSFORMER >				НА	RD\
∱\T901	1-423-685-11	TRANSFORMER, PO	VER	-		****	*****
					#1	7-685-871-0	1 SCRI
		< TEST PIN >			#2	7-682-547-0	9 SCRI
					#3	7-685-133-1	9 SCRI
• TP801	1-564-506-11	PLUG, CONNECTOR	3P		#4	7-682-147-1	5 SCRI
					#5	7-682-548-0	9 SCRI
		< VIBRATOR >					
					#6	7-621-849-0	0 SCRI
		VIBRATOR, CERAM			#7	7-621-775-2	
		VIBRATOR, CERAM			#8	7-628-253-0	O SCRI
******	*********	***********	**********	******	#9	7-621-255-2	
					#10	7-621-772-2	O SCRI
		MISCELLANEOUS					
		********			#11	7-671-154-0	
					#12	7-685-870-0	
		LEAD (WITH CONNI	ECTOR)		#13	7-621-772-7	
<u>∱</u> 57	1-575-651-21				#14	7-622-205-0	
▶ 147		PC BOARD, ERASE	HEAD	ļ	#15	7-628-254-1	0 SCRE
	1-632-779-11		_				
D1001	8-719-980-85	DIODE SLF-3250	;		#16	7-682-648-0	
				l	#17	7-621-255-3	
		FUSE, TIME-LAG			#18	7-682-548-0	
		HEAD, MAGNETIC			#19	7-682-547-0	4 SCRI
		HEAD, MAGNETIC					
		MOTOR (REEL R) A MOTOR (ASSIST) A					
		ENCODER, ROTARY	urn.				
∱ T901	1-423-685-11	TRANSFORMER, POV	icn				
				1			

HARDWARE LIST

REW +BVTT 3X6 (S) REW +BV 3X6, S TIGHT REW +BTP 2.6X6 TYPE2 N-S REW. TR REW +BVTT 3X8 (S) REW (BV/RING) REW +B 2.6X5 REW +PS 2X4 REW +BVTT 2X4 (S) REW +B 2X5 ENLESS BALL REW +BVTT 3X5 (S) REW +B 2X14 T M2 TYPE2 REW +PS 2.6X6 REW +PS 3X8 REW +BVTT 2X5 (S) REW +BVTT 3X8 (S) REW +B 3X6

The components identified by mark Λ or dotted line with mark. Λ are critical for safety. Replace only with part number specified.